

HQ
755.7
.P37
1968

c.1

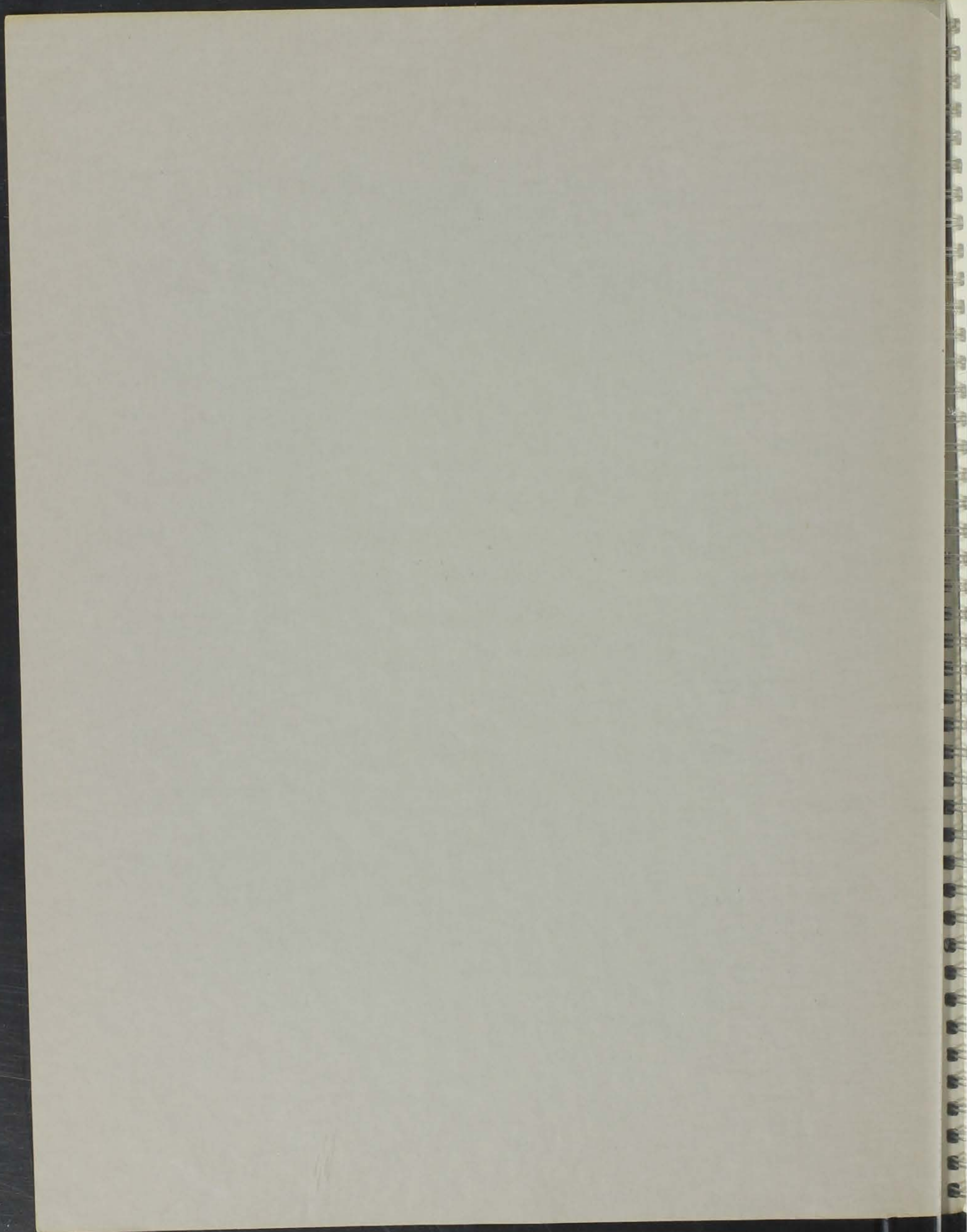
*Lowry Dept
Childbirth*
Published by the

Division of

Maternal and Child Health
Iowa State Department of Health

Parent Classes

A Manual for
Iowa Nurses
to use
when preparing
to teach
classes for childbirth



MANUAL FOR EXPECTANT PARENT CLASSES

TABLE OF CONTENTS

| | Page |
|--|------|
| INTRODUCTION PLANNING FOR EXPECTANT PARENT CLASSES..... | 1. |
| LESSON I WHAT YOU WILL NEED - MOTHER, FATHER AND BABY..... | 11. |
| LESSON II EAT WELL AND FEEL WELL..... | 21. |
| LESSON III HOW YOUR BABY GROWS BEFORE BIRTH..... | 29. |
| LESSON IV BABY'S BIRTHDAY..... | 40. |
| LESSON V HOSPITAL TOUR..... | 49. |
| LESSON VI BABY MEETS THE FAMILY..... | 55. |

THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

REPORT ON THE PROGRESS OF WORK

FOR THE YEAR 1954-1955

BY

JOHN H. SCHWARTZ

AND

JOHN J. HOPKINS

CHICAGO, ILLINOIS

INTRODUCTION

PLANNING FOR EXPECTANT PARENT CLASSES

We know that many expectant parents today want information on what to expect during pregnancy, labor and childbirth. This knowledge seems to contribute much to their sense of well-being and comfort during this important phase of their life. Group meetings provide an opportunity for expectant parents to meet together, share experiences, ask questions and receive information under guidance.

How to Get Started and Who Will Teach

The initiative for starting classes may begin with physicians, hospitals or parent groups. Many physicians provide the greatest impetus in organizing groups. Often a nurse who has cared for a well-prepared mother during labor and childbirth becomes interested in providing this service to the entire community.

When a nurse or parent group in the community initiates the classes, it is well to bring physicians into the early stages of planning. This manual may be presented to them so they will gain knowledge of what you are proposing to do. You will want the support and help of the physicians.

In Iowa, nurses usually accept the responsibility of teaching and leadership for the class. Guests such as a nutritionist or a physicians' panel may be invited for one or two sessions. However, the leader should be there for all sessions.

In some communities, two nurses, a public health nurse and a hospital nurse, may share the responsibility for the entire series. Both nurses attend all the sessions.

It is well to limit the number of parents in one class. Much of the satisfaction for parents comes in the relationships formed at these sessions. This is more readily achieved through the association of a smaller number of people.

An instructor, such as a public health nurse, who is not a part of a hospital staff, can greatly increase her effectiveness if she becomes familiar with the personnel and routines of the hospital in her community. It is usually helpful if the parents can meet some of the people who will be caring for them during the hospital stay.

Agencies such as hospitals or a group of physicians asking a nurse to assume responsibility for teaching classes should plan to remunerate her for the time involved. This should include actual teaching time and time for preparations. The materials she needs should also be provided. The Iowa State Department of Health will furnish some literature to be given to parents.

SOME MECHANISMS OF ORGANIZING A CLASS

Meeting Place

Often this decision is automatically solved by the person who initiates the project. Physicians may choose to have classes in their offices. They employ their own teacher, and limit the service to their own patients. In many communities classes are held in the hospital as a service to the community. Sometimes a Y.W.C.A. or the Adult Education Department of Public Schools sponsor classes. These groups usually provide the meeting place and may charge a small fee for the service.

Publicity

Some physicians require their patients to attend classes. Folders prepared by the sponsoring agency can be left in physicians' offices. In some communities, newspapers and radio stations assist with publicity. Satisfied and enthusiastic parents are another form of advertising.

How Many Class Sessions?

Most groups have from four to six meetings. The number of sessions is often dependent upon the instruction given in the physician's office and the hospital program. For example, if the hospital demonstrates the bathing of newborn infants, this is omitted from the class sessions. Classes meet once weekly for the series. The number of series of classes during a year will be dependent upon the size of the community. This varies from two series a year to a continuous program.

The Group

The composition of the group varies according to community patterns. In some areas, husbands and wives want to attend together. Eight to ten couples make a good group. They learn to know each other quite well and there is more opportunity for them to ask questions. These classes are held at night.

In some communities only the prospective mothers are interested in attending. About 10-12 mothers make a good group. They usually meet in the afternoon. Sometimes prospective grandmothers come to these sessions. The afternoon groups occasionally will have one evening session and invite the husbands. Often a physicians' panel will answer questions for this group at the evening meeting.

HOW TO PLAN CLASS CONTENT AND METHOD OF PRESENTATION

The content of the manual is intended to serve as a guide for the kind of material that will be presented and/or discussed in your classes. Some of the material will serve as resource material for the instructor. We do not intend that you should use it as is. Vary it according to the needs of your community and your group. Examples: Husbands are not usually interested in the intimate details of clothing for the wife. However, they are usually interested in how much all of this will cost. In some communities, physicians may spend time instructing patients about what the expectant mother may do or may not do. You will not need to repeat this. The physician will prescribe the diet he wishes his patient to be on. However, many young couples need help in general family nutrition. We feel basic information on nutrition is most important for the growing family.

Most pregnancies and deliveries are normal. Try to emphasize this in your group. For each couple this is a very personal experience; one that has a special meaning to them. Try to develop sensitivity to the young couple or mother who evidences undue interest in the abnormal situation. Try to find time to speak to them individually. You may find they have concerns that should be directed to their personal physician. Encourage them to take these matters to him.

Your group meetings are usually more successful if they are informal. If you can arrange to have one large table to sit around, do so. A coffee break helps to maintain an informal atmosphere. When you as an instructor sit at the table with the parents, they seem to feel more free to talk.

As a beginning teacher you may find it easier to utilize the lecture method for your first series. For the first session of any group you may have to do most of the talking. This is especially true if you start on the more intimate subjects such as the anatomy and physiology of the reproductive system. As time goes along you will develop your own methods of teaching. Each series of classes will be different as each group of parents present different needs and interests. We believe that both the instructor and parents will derive more satisfaction from the class experience if there is freedom to volunteer information, ask questions and discuss some of their apprehensions. An opportunity to verbalize these questions and get information helps to dilute fears.

A Medical Advisory Committee

Most nurse instructors of expectant parent groups have a medical advisory committee. This committee is appointed by the hospital medical staff or in small communities by the county medical society. Your medical advisory committee may consist of several persons, or, as in some areas, only one physician serves in this capacity. This group can be of help in planning content and serving as a "sounding board." They frequently report reactions of patients who attend classes. These reports can be helpful to you.

PREPARATION OF THE NURSING STAFF IN THE HOSPITAL

Instructors of classes for expectant parents usually explain many practices encountered by the patient during her hospitalization. You will tend to emphasize the ideal. Since parents will be expecting the ideal, nurses working in the maternity department should know what you are teaching. Many hospitals teach the first series of expectant parent classes to the nurses working in the maternity department. This is a good plan. Attendance at a series of classes should be a part of the orientation program of every nurse as she joins the maternity nursing department.

If you are a nurse planning to teach and do not belong to a hospital staff, learn to know these nurses and the hospital practices. Invite them to attend your classes.

It is most important that the care of the patient in the hospital resembles that discussed in the class situation. This is especially important if relaxation techniques are taught. The hospital staff must be prepared to support and encourage the parents during labor and delivery. Parents usually need help from the nurses in use of relaxation techniques during labor.

VISUAL AIDS, TOURS AND DEMONSTRATIONS

Most class leaders use a minimal amount of visual aid material. The Birth Atlas as published by the Maternity Center in New York is the most popular piece of material. Blackboards are useful even if you are not an artist.

Films and demonstrations can be used. We feel they have a limited amount of value and should be used sparingly.

Tours through the labor and delivery department of a hospital are very popular. They seem to allay many fears of the young people. When you take parents on such a tour, we suggest that coats and hats be left elsewhere and the group members be given gowns to wear when visiting the maternity department.

In some of our larger hospitals the maternity department is too busy for this kind of activity. Staff members of these hospitals have made a series of colored slides showing the maternity patient. Personnel from the hospital maternity department visit the class when these slides are shown. This seems to be satisfying to parents.

SAMPLE INVITATION

You are invited to attend:

A Discussion Group for Expectant Parents

We will talk about:

The Family's Needs Before the Baby is Born

The Normal Physiological and Psychological Processes of
Pregnancy and Childbirth

The Hospital Environment and Practices

The Care and Needs of a Newborn Infant

The Course will be held _____

Beginning _____
(Date) (Time)

Cost _____

The course will be taught by local nurses

VISUAL AID MATERIALS

| | |
|-------------------------------|--|
| Birth Atlas | Maternity Center Association 48 East 92nd St. New York, New York 10028 \$7.00 |
| Chart on Menstrual Physiology | International Cellucotton Products Co. 919 North Michigan Avenue Chicago 11, Illinois 60611 |
| Knitted Uterus | Directions found in: Briefs, Maternity Center, New York September, 1963, Volume XXVII No. 7, page 108 |
| Layette Materials | Useful for some groups, especially the various types of shirts and diapers. |
| Food Cut-outs | American Dairy Association of Iowa 333 Insurance Exchange Building Des Moines, Iowa 50309 |

GENERAL BIBLIOGRAPHY FOR NURSES

Books

Blake, Florence: THE CHILD, HIS PARENTS AND THE NURSE, J. B. Lippincott Co., Philadelphia, 19105. 1954

Clark, Ann: LEADERSHIP TECHNIQUE IN EXPECTANT PARENT EDUCATION, Springer Publishing Co., Inc., 200 Park Avenue South, New York, New York, 10003. 1962.

Wiedenbach, Ernestine: FAMILY-CENTERED MATERNITY NURSING, G. P. Putnam's Sons, 200 Madison Avenue, New York, New York, 10016. 1968

Woodward, Garner, Bryant and Overland: OBSTETRIC MANAGEMENT AND NURSING, F. A. Davis Company, 1914 Cherry, Philadelphia, 19103. 7th Edition, 1964

Periodicals

Auerbach, Aline: NEW APPROACHES TO WORK WITH EXPECTANT PARENTS GROUPS, American Journal of Public Health, February, 1957

Caplan, Gerald: THE MENTAL HYGIENE ROLE OF THE NURSE IN MATERNAL AND CHILD CARE, Nursing Outlook, 2:14, January, 1954

Donny, Ethel: IMAGINATION IN MATERNITY CARE, American Journal of Nursing, 60:45, January, 1960

O'Keefe, Margaret: ADVICE FROM A NURSE-MOTHER, American Journal of Nursing, 63:12, December, 1963

Rubin, Reva: MATERNITY CARE IN OUR SOCIETY, Nursing Outlook, 11:7, July, 1963

Pamphlets

Children's Bureau Publication #4: PRENATAL CARE

Children's Bureau Publication #8: INFANT CARE

American Medical Association THE MIRACLE OF LIFE

SUGGESTED READING MATERIAL FOR EXPECTANT PARENTS

The materials not supplied by the Iowa State Department of Health can often be found in public libraries. The publisher's name has been added for those wishing to purchase books. A good way to introduce these references is to present one or two at each meeting.

Prenatal Care and Infant Care

PRENATAL CARE

Children's Bureau

Available from:

Division of Maternal & Child Health
Iowa State Department of Health
Des Moines, Iowa 50319

BREAST FEEDING

Children's Bureau

Division of Maternal & Child Health
Iowa State Department of Health
Des Moines, Iowa 50319

INFANT CARE

Children's Bureau

Division of Maternal & Child Health
Iowa State Department of Health
Des Moines, Iowa 50319

HOW DOES YOUR BABY GROW?

Gerber Products Company

Gerber Products Company
445 State Street
Fremont, Michigan 49412

POCKET BOOK OF BABY AND CHILD CARE

Benjamin Spock, M.D.

Pocket Books, Inc.
1 West 39th Street
New York, New York 10018

OBEDIENCE MEANS SAFETY FOR YOUR CHILD

American Academy of Pediatrics
1801 Hinman Avenue
Evanston, Illinois 60204

Nutrition

NUTRITION AND HEALTHY GROWTH

Children's Bureau

Nutrition Service
Iowa State Department of Health
Des Moines, Iowa 50319

FOOD VALUES IN COMMON PORTIONS

U. S. Dept. of Agriculture, 1951

Nutrition Service
Iowa State Department of Health
Des Moines, Iowa 50319

FEEDING YOUR INFANT AND CHILD

Spock and Lowenberg

Pocket Books, Inc.
1 West 39th Street
New York, New York 10018

Family Relationships

PARENT'S RESPONSIBILITY

American Medical Association
National Education Association

American Medical Association
535 North Dearborn Street
Chicago 10, Illinois 60610

BUILDING YOUR MARRIAGE
Evelyn Duvall

Public Affairs Pamphlets
381 Park Avenue South
New York, New York 10016

EXPECTANT MOTHERHOOD
Nicholson Eastman

Little, Brown and Company
Boston, Mass. 19642

HUSBANDS AND PREGNANCY
William H. Genne

Association Press
291 Broadway
New York, New York 10007

WHAT MAKES A HAPPY MARRIAGE

Public Affairs Pamphlets
381 Park Avenue South
New York, New York 10016

FILMS

These films are available on a limited basis. Place your order early. Order from the Division of Public Health Education, Iowa State Department of Health, Des Moines, Iowa 50319. Write for catalog.

BIOLOGICAL ASPECTS

Biography of the Unborn - 16 min. Diagrams the fertilization progress, stages of embryonic development, development of the baby during gestation period. Attempts to develop a wholesome understanding of normal sex phenomena and to emphasize the fact that all life springs from life.

EDUCATION FOR CHILDBIRTH

Medical Exam. During Pregnancy - 35 min. This film relates the necessity of prenatal care during pregnancy. It emphasizes the importance of physical examinations and a good diet.

Nine Months to Get Ready - 25 min. Color. A documentary film relating the story of a young mother in her second pregnancy successfully avoiding complications by good medical care. Shows some practical problems initiated by well-intentioned friends and neighbors.

A Normal Birth - 15 min. Shows an uncomplicated delivery under local anesthesia. The mother is awake and is an active participant.

Labor and Delivery - 35 min. Explains the three stages of labor, emphasizing when to go to the hospital, what to expect and the need for confidence and relaxation. The pictures are taken in the labor room and delivery room of a hospital.

From Generation to Generation - 30 min. Color. The film tells with imagery and symbolism the universal story of the coming of a baby into a family; animation tells the story of the unfolding life. The functioning of the organs of human reproduction and the menstrual cycle are observed; conception and development of the fetus are shown into maturity, including intra-uterine nourishment and elimination of waste by the placenta. Animation shows the work of the muscles in labor and the birth of the baby.

Baths and Babies - 20 min. Color. Demonstration of bathing a newborn infant. However, film depicts the opportunities to provide love and affection as an extra bonus.

Expecting (Diet in Pregnancy) - 10 min. Color. The film presents the importance of early consistent medical care during pregnancy. The essentials of a good diet according to present day nutritional standards are shown.

To Plan Your Family - 14 min. Color. The film opens with engaging interviews with a number of women who tell why they are using contraceptives and why they wished they had started earlier. Film explains in simple terms reproductive organs of the female, the process of fertilization by the male and the growth of the baby in the uterus. The film surveys the various methods of preventing conception. It closes with more interviews in which the women tell of their own successful experiences and allay irrational fears.

LESSON I

WHAT YOU WILL NEED - MOTHER, FATHER AND BABY

OBJECTIVES

To introduce class members to each other and to clarify objectives and desires of parents.

To discuss changes in family living now that a baby is expected.

1. Medical Care
2. Care of Mother
3. Family Adjustments
4. Clothing

SUGGESTED MATERIALS

New Films

Blackboard

Name Tags

Clothing and supplies which may interest the group

Equipment needed to demonstrate good body mechanics

LITERATURE

"Prenatal Care"

Children's Bureau

TO THE INSTRUCTOR

Conducting Expectant Parent Classes is a definite contribution to your community as well as to the members of the class. Any activity that favorably affects the health of a group aids in bettering the health of the entire community.

It may be well to pause here and discuss your role as the instructor of the class. The impression made by an instructor is very important to the success of the course. During this first class session you will be forming an impression of the class members--and they will be forming one about you. So, for the moment, let's imagine that you are sitting in the class looking at yourself.

As a person are you:

-Well-groomed.
-In street clothes or uniform. (Decide with your medical committee which would be most appropriate.)
-Mature, emotionally stable, sensitive to people, informal, and friendly.
-Possessed of a sense of humor.
-Animated.
-Interested in the course.
-Sincere.

All of these are attributes that help make a teacher and her teaching successful. As you meet with your class and become acquainted with the members--and they with you--you will find this a most rewarding experience.

It is a good idea to register class members at the first session. You will want to know who their physician is, and if they have other children. Provide name tags for class members. A large card and a poster pencil will make the name easy for everyone to read.

In this first session introduce yourself and tell something about yourself. Identify your sponsoring agency. If two of you teach, one a hospital nurse and the other a local public health nurse, you can discuss your functions and relationships.

Parents may be asked to introduce themselves and volunteer any information they wish to share with others.

Review the topics you think will interest parents and ask what they wish to cover. You will find it is a good idea to emphasize that the group will concern itself with normal pregnancy, labor and delivery.

The topics you will introduce are the kind found in this manual. Generally speaking, for the first session try to start on something that is not too personal. For this reason we suggest such areas as need for medical care and how to make best use of the physician's service. Changes in family structure, personal hygiene, costs of adding another member to the family are good "warm-up" topics that are not of a deeply personal nature.

The material in this chapter can provide some good topics for a beginning discussion group. However, these are also some areas that need to be reviewed with your medical committee.

This may be a good time to start teaching something about relaxation. Directions for this can be found in material obtained from the New York Maternity Center and in the book, FAMILY-CENTERED MATERNITY NURSING, by Ernestine Wiedenbach. You can plan a demonstration of positions for relaxation and good body mechanics for this meeting. Some instructors ask patients to bring a cotton rug to the sessions and practice comfort positions and relaxation techniques. These should be planned with your medical committee.

If you have an afternoon class or one for mothers only, you may want to spend more time on clothing for mother and baby. A layette is useful. Some nurses have style shows of maternity clothes for mothers. In this printed lesson we will discuss clothing needs in general.

LESSON I

WHAT YOU WILL NEED - MOTHER, FATHER AND BABY

Now that you are going to have a baby, life at your house is changing. Adding another member to your family is a new experience, whether this is the first one or the fifth one. Plans made for the next few months may make a great deal of difference in how quickly and easily the new member of your family fits into your household. I'm sure that you have many questions and many ideas. Husbands may see things from a point of view different from that of the wife. We can't answer all of your questions, but we can talk about some of the changes and needs you must concern yourself with.

Your first need is for medical care for your family. It is important to have a personal physician, and it is most important for women to go to their doctor early in pregnancy. All of you in this group most likely are under medical care. In all probability, most of you will have more children, and as the size of your family increases the importance of medical care for the mother increases. It may be more important for you to make an early visit when you are expecting your fifth baby than for your first baby. Remember each pregnancy is different and your health at the onset of each pregnancy may be different. One of the things we hope you will specifically remember from this series of classes is the necessity of early medical care for each pregnancy.

We think it is important for husbands to know the physician who is caring for his wife. If you do not know your wife's doctor or have never visited him, try to make a joint visit before the hospital experience. At the first office visit your physician may not have been able to make a diagnosis of pregnancy. You may or may not have a complete physician examination, but you should have one during one of the early visits.

We think it is a good idea if you know your blood type and whether you are Rh positive or negative.

Today many physicians are including a Papanicolaou smear to rule out the possibility of cancer. All women should have this done yearly as part of a physical examination. It is not costly, nor is it painful and it can save your life. We think it is wise for you to include a "Pap-smear" in your health program. Discuss the frequency with your doctor. The usual recommendation is to have it done yearly.

If you have been pregnant before, your doctor will want to know about it. Your health and well-being during a previous pregnancy may need to be considered in the medical plans for this pregnancy.

Now that you have chosen your physician, follow his directions. Your medical care is tailor-made for you. Don't be disturbed because your friend's medical care program is different from yours. Remember, you

and your friends are two different people: you are in a way the same, yet you are different, and the differences may account for the differences in medical care. Your physician's instructions will cover many aspects of your life, such as your return visits, diet, eliminations, travel, personal hygiene and marital relations.

It is a good idea to discuss the kind of infant feeding you wish. If you are planning to breast feed your baby, your physician should know. He can offer some helpful advice about preparation of your breasts for breast feeding. Each doctor has his own routine in caring for his patients. If you have specific questions relating to yourself, ask him.

Diet

In the next class we will discuss food for yourself and for your family. Sometimes menu planning can become difficult; knowing what food you should include every day can make menu planning and grocery shopping easier.

During the first three months of pregnancy you are building and changing your body. Although the baby remains very tiny, each organ and part becomes fully formed. During the second three months the baby's growth begins to increase, especially in length, and in the last three months the baby grows rapidly.

Your caloric requirements increase only about 20 per cent. However, your need for protein, calcium, iron and vitamins has increased much more than your caloric requirement. Therefore, you must be more selective of the foods you eat rather than simply eating more than usual. If you gain only the approximate two pounds a month as recommended by your doctor, you will feel much better during your pregnancy.

The average woman loses about 17 pounds after a normal delivery. If you gain much more weight you may find it a rather difficult task to lose the extra pounds. Your baby will grow whether or not you eat the right foods, but by eating properly you provide your baby with the best possible start in life, and you protect your own body.

Any special diet necessary will be prescribed by your doctor. It is very important for you to follow the diet recommended by your physician because a carefully controlled diet, when necessary, is a very big factor in making pregnancy and labor safe for healthy women. If you have questions about planning a special diet, your public health nurse can assist you at your physician's request.

Elimination

For your general comfort and well-being, it is important that you do not let yourself become constipated. If you have had a tendency to be constipated, you will probably be so during your pregnancy. You may already know some simple measures that tend to keep you "regular" such as eating fruits, vegetables, bulk cereals, etc., and drinking sufficient quantities of fluids. If these do not prevent constipation, your doctor can suggest some other things to do. It is not a good idea to take laxatives without your doctor's advice. Many times the most

valuable measure is to set aside some regular time each day when you can relax and be free from tension.

During the latter part of pregnancy, as your baby gets bigger, you may notice that you have to urinate more frequently. However, if you have any burning, smarting or inability to urinate, you should contact your doctor.

Dental Care

It is advisable to review your home oral hygiene practices with your dentist at this time. Intelligent, conscientious personal oral hygiene takes on added importance to the health of your teeth and gums during this period. It is not at all inevitable that a mother's teeth will become decayed during pregnancy. The old saying, "A tooth for every child" has no foundation since once calcium is deposited in teeth, it remains there. During pregnancy your gums may become swollen and bleed more easily than usual. If this happens, your dentist can advise you about it. When you go to the dentist, tell him you are pregnant. This may make a difference in relation to x-rays.

Frequency of Visits to the Doctor

As pregnancy progresses, most physicians see their patients once a month. During the last three months, he will want to see you more frequently. In the last month you can expect your physician to have you come in every week for a check-up. At all visits, he checks blood pressure, urine and weight. Later in pregnancy, he can palpate the abdomen for size and position of the baby. Complications of pregnancy rarely occur suddenly. There are warning signs that your doctor will see long before you are aware of them. This is one reason why it is so important for you to be conscientious in making your return visits and following his directions. Ask him about reporting unusual things such as spotting from the vagina or headaches if you have been having them. Feel free to ask him questions that are bothering you. Questions are not foolish, the answers are important for your well-being.

Travel

If you are planning to go on a long trip during pregnancy, discuss this with your doctor. He may not want you to take a long automobile trip. Flying is usually less tiring. During the last two months of pregnancy it may not be wise to be away from home for a long period of time. You might happen to be one of those very few women who have a premature onset of labor. In the event of any complication you will feel better having your own physician attend you.

Smoking and Alcohol

Discuss this with your physician. Most physicians permit smoking in moderation. It may be helpful to have his definition of moderation. Drinking an alcoholic beverage occasionally is usually permitted, too, but again you will want to discuss this with your doctor.

Drugs

Do not take drugs that have not been ordered for you by your physician. This is particularly important during the first three months of your pregnancy--part of this time you are not aware that you are pregnant.

To Work or Not to Work

This is another question you may need to discuss with your doctor. Some young women may need to work for financial reasons. If you are healthy, probably the type of work you are doing is of more importance than the fact that you plan to work.

Generally, your work should not involve heavy lifting. It would not be wise to work in factories where the risk of accidents is high or where exposure to toxic substances is possible. Some companies have regulations in relation to how long a pregnant woman may work. Some doctors want their patients to stop working four to six weeks before the expected date of delivery.

Rest and Relaxation and Exercise

One of the changes pregnancy brings is a need for more rest. Very often you feel a need of a great deal of sleep during the early months. During pregnancy your body has new and greater demands put upon it increasing your need of rest.

Mothers who have young children at home find it difficult to find a time to rest during the day. But do try; you will feel better. Perhaps you can plan a rest period when your children have their afternoon naps. If you are unable to sleep, just lying down for a period of rest is helpful.

Learning to relax can help you to go to sleep more easily. Some of the secrets of relaxation are a comfortable position, reduction of outside stimuli and comfortable clothing. We will discuss and practice relaxation more in detail in succeeding classes. You will learn how to "let go" of joints and muscles. You will learn how to use respiration as an aid in relaxing. Inhaling and exhaling slowly and deeply is important in relaxation.

Sufficient exercise is important during pregnancy. However, you should not undertake strenuous exercise. Ask your doctor about such sports as tennis and horseback riding. The exercise you get doing ordinary housework is good for you. Avoid doing such things as heavy lifting or pushing furniture around. Stop to rest before you are tired, not after you have become exhausted. If you are not responsible for housework, a daily walk is a good form of exercise.

Understanding Yourself

In general, most parents feel that the coming of a new child is a satisfying and happy experience. It is a fulfillment of a basic human desire. Even so, all women have some anxiety about what is happening to them. This is normal, but knowledge of what is happening to you, and what to expect helps to relieve these feelings of tension and uneasiness. Pregnancy and childbirth is a normal process, but if this is your first baby it is a new experience. It is helpful to learn about yourself and what is happening to you.

These are some changes other than physical you may expect: Quick changes in mood come along easily for many women. One minute you will be elated

and happy. You can scarcely wait until you will be caring for the new baby. Then things can change just as quickly. You may be irritable, cry and feel as though nothing is going right. You may wonder what these changes mean. Perhaps the simplest way to explain it is that emotional and bodily changes are closely related. Changes in the hormone balance of a woman seem to affect her emotional state. These feelings tend to be a normal part of pregnancy for many women. If you are one of these women who have frequent mood changes, you have comfort knowing you have company in this matter. Try not to worry about these feelings.

It is good to keep busy with your everyday activities. If you have children, you don't have much choice. Keeping busy doesn't mean doing heavy lifting and such. Your husband can do some of this. He may think it's spoiling you--we don't think so. Some days you may feel lazy, prefer to be alone and not do much. Give in to these desires occasionally. It may be nature's way of slowing you down, to help you do some planning for yourself and your family.

Another thing you may be concerned about is how you will "behave" when you get to the hospital. All mothers want to do well at this time--and all mothers do well. But we are all different. Practicing relaxation and abdominal breathing can do much to help you. In Iowa your husband can be with you during labor if you like. Most husbands and wives find a real source of strength in each other. We hope most of the doctors and nurses will be helpful to you.

As your baby grows it will be more difficult to get around. You may ordinarily be a very self-sufficient person, and resent the feeling of dependence. Again, some "spoiling" from your husband is in order. Now for you husbands, "spoiling" your wife in this way won't hurt her. It can do much for you in this process of getting a home ready for the new baby. It's a more tangible way of expressing your love and interest to your wife than "just paying the bill." We know this is the area husbands are concerned about. So wives, be understanding here--and spoil him a bit, too. New babies do not give affection to mother and father. They only accept it. What you give to each other now goes a long way in helping you give love and affection to the new baby.

Clothing for Mother

Now, if you have lots of money your wardrobe can be beautiful. Any of you who have been shopping around have discovered this by now! Nevertheless, even on a limited budget you can be attractive. Simplicity and cleanliness is the keynote to maintaining a smart appearance. Many young women borrow dresses from friends; some like to sew. These are principles for you to consider when planning and buying your wardrobe.

Your clothing should be comfortable and not tight around the breasts, abdomen and legs. Invest in a good brassiere; in the larger shops a saleslady will "fit" you. It will, of course, be an "uplift" one. Wear a garter belt to hold up your hose when you dress up. Never wear round garters or hose with tight garters to hold them up.

Your shoes should be comfortable. As pregnancy progresses your center

of balance changes. Low heeled casual shoes will be more comfortable for general wear. Be sure they are large enough; sometimes later in pregnancy your feet spread a little.

Pregnancy and nursing your baby need not damage your figure. The right food and exercise and following medical recommendations will preserve your figure.

Baby's Needs

Babies have many needs. You do need to think in terms of clothing and equipment. How much does this cost? You can spend almost any amount, but here are some principles:

You want your baby to be comfortable. Clothing suited to his needs will contribute much to his comfort. His wardrobe need not be expensive, and it can be limited to only essentials. Remember that he will grow rapidly in the first few months and will probably receive many gifts.

One purpose of clothing is to keep your baby warm, but it is possible to have too many clothes on him. Add or subtract garments according to the temperature of his surroundings.

The design of your baby's clothing is important. Choose garments that are easy to put on and take off; those that have snaps are easy to open and close. Shirts and nightgowns that are open all the way down the front or back are very popular. If the shirt is open only at the neck, make sure it has plenty of overlap on the shoulders. Sleeves should be long or short according to the climate or season. Avoid garments with a drawstring about the neck. Drawstrings, jewelry or medals on chains around the neck are potentially dangerous; they could choke your baby.

Tight fitting, restrictive clothing may hamper your baby's movements. This could make him uncomfortable and fretful. Check the arm holes to see that they are deeply cut and that the leg bands on panties are not too tight.

Babies seem to like simple clothing best and are often fussy when "dressed up." Fancy clothing often requires more care. Your new responsibilities will not give you the time to do the special washing and ironing these garments may require.

A good feature of today's babywear is that some garments allow for growth. Look for such things as shirts that tie on the sides and sleeping bags that have tucks on the shoulders and in the hemline.

Fabric is also important. It should be soft and able to withstand many washings in hot water. Good materials are cotton knits, flannel, plisse, terry cloth and corduroy. Sweaters and blankets made of synthetic fibers such as nylon and orlon launder easily, are warm and wear well. Check to see that the garment is sanforized and color fast. You will enjoy the fabrics that require little or no ironing and are absorbent.

Shirts, nightgowns and diapers will be the major items in a new baby's wardrobe. Shirts and nightgowns are often sized according to weight. Average newborn babies weigh about $6\frac{1}{2}$ to $7\frac{1}{2}$ pounds. It is wise to buy clothing for a larger baby as they soon "grow into them." Probably the most important requirements for diapers are that they are absorbent, launder easily and remain soft.

How Much Clothing Should You Buy?

This is a minimum list:

1. Shirts, 3-4
2. Nightgowns, 3-4
3. Sweaters, coat type, 1
4. Cap, 1
5. Blankets, 2
6. Flannel squares, or "receiving blankets," 2-3
7. Crib sheets, 2
8. Diapers, 3-4 dozen

Nursery Equipment

This need not be elaborate or expensive. It is preferable to have a separate room for your new baby. If this isn't possible, try to arrange a corner for him and his equipment.

Basic essentials are:

Bed with a waterproof mattress
Chest of drawers
Bath equipment
Diaper pail

When buying a crib there are some points to take into consideration. The bars on the crib should be spaced closely enough so there is not room for the baby to put his head through and get caught.

It is important to know that the finish on the crib will not be harmful to your baby. If you are buying a second-hand crib or an unfinished one and decide to paint it, be sure you do not use a heavy lead paint. Children can become seriously ill from chewing or mouthing objects that are painted with lead paint. Authorities say that paint used on toys and nursery equipment should contain less than one per cent of lead.

Having a baby or adding a baby, as you can see from our discussion, is another step in the adventure of living.

LESSON II

EAT WELL AND FEEL WELL

OBJECTIVES

To give information that will be helpful in selection of a diet adequate to nourish mother and baby.

To help the mother-to-be establish eating patterns which will benefit the whole family in future years. Good nutrition in childhood helps through all of life.

REFERENCES FOR THE INSTRUCTOR

Simplified Diet Manual

Iowa State University Press
Ames, Iowa
\$2.50

Nutritive Value of Foods

Home and Garden Bulletin No. 72
U.S. Department of Agriculture
Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
.25¢

Shows food values in about 500 foods commonly used.

Catalog of Health Education Materials

American Dairy Association of Iowa
333 Insurance Exchange Building
Des Moines, Iowa 50309
Poster, graphs, booklets for Normal Nutrition, Pregnancy, Weight Control, etc.

Bulletins from Iowa State University Cooperative Extension Service, Ames, Iowa.
HE44 Nonfat Dry Milk, and HE23 Freezing Fruits, Vegetables, Prepared Foods.

SUGGESTED VISUAL AIDS

Expecting (film) --(See description elsewhere)

Food Cut-outs - May be used to show attractive servings and models of meals.

OUTLINE OF LESSON

- The foods everyone needs for an adequate diet--Basic Four Food Groups.
- How to translate the Basic Four into foods for the day.
- Special dietary needs for pregnancy and lactation.

What does the word "diet" mean to you? People say "I'm on a diet," meaning usually that there are some foods they are doing without.

But we're all "on a diet," since our diet means only the foods we usually consume in a day. Everyone needs a good diet because the foods we eat gives us the materials to keep all the body cells in good condition, and furnishes heat and energy for the work our bodies have to do. A good diet depends on the foods we do eat rather than on foods we don't eat.

There are many different foods we can eat to supply the needs of the body: hominy grits and black-eyed peas in the South, or baked beans in Boston. The foods you eat are probably similar to those your mother served, and in your own family you will be setting the patterns which your children will follow.

All of us need foods each day which will furnish the nutrients our bodies need. When we are children we are building longer bones, more tissues, as we grow. Even after we have finished our growth periods, our bodies are constantly building up and tearing down tissues. This goes on all our lives, and the only way the body can get the materials it needs is through the foods we eat.

Fortunately, we don't need to know just how much protein is in each food, or how many vitamins and minerals. There is a simple diet plan in which the foods normally needed are arranged in four basic groups. If we supply the amounts recommended of these, we will have a good basic diet.

Four Basic Food Groups

Milk Group-----Two or more cups for adults (one pint).
This doesn't always have to be milk to drink--it can be dry milk added to other foods, such as meat loaf or pudding, or cheese, ice cream.

Milk gives us calcium which is needed for bones and teeth, plus high-quality protein, vitamins, and many other nutrients.

Meat Group-----Two or more servings to total four or five ounces of cooked meat daily. This includes meats, fish, poultry and eggs. Dried beans, dried peas, lentils, nuts, peanut butter, may be used as alternates.

Vegetables and Fruits-----Four or more servings a day.
You need to eat a good variety of these, with plenty of deep yellow and dark green leafy vegetables, at least one serving a day of citrus fruit or some other good source of vitamin C. Cantaloupe, strawberries and tomatoes are also rich in vitamin C.

Bread and Cereals-----Four or more servings a day, whole grain or enriched. Read the label on cereals, bread and flour to see whether they are enriched.

These are the foods we need every day for good health, not only in pregnancy or childhood, but all through life. In general, young children need smaller servings, except that they need more milk. More and larger servings are

needed in pregnancy, but not until the second half of the term. The overweight person needs fewer calories from food so as to burn the excess body weight, but needs to include the Four Basic Food Groups. Weight should never be reduced at the expense of dietary essentials, but rather by cutting down on unnecessary calories.

If your physician wants you to avoid any of these foods for any reason, he will tell you what he wants you to eat. Some of your well-meaning friends may talk about eating for two during pregnancy: so you will, but not for two your own size.

Vitamins and minerals are essential for everyone. This doesn't mean you should rush out and buy vitamin-mineral supplements unless they are ordered by your doctor. All of them are present in everyday foods in a good ordinary diet. Reasonable amounts of a variety of foods: meat, fish and eggs, enriched bread and cereals, fruits and vegetables and dairy products, will furnish adequate amounts of vitamins and minerals.

What is a "reasonable" amount of different foods?

Milk - A serving is taken to be an eight ounce cup, and we need two of these each day in the normal diet. It may be whole or skim milk, buttermilk, dry skim milk, used in cooking or as a beverage. Cheese and ice cream may replace part of the milk: a one-inch cube of cheddar cheese equals one-half cup of milk; one-half cup of cottage cheese equals one-third cup milk; one-half cup ice cream equals one-fourth cup milk.

Meat - For the two or more servings a day, count as a serving two to three ounces lean cooked meat, poultry or fish, all without bone. If you think of a pound of hamburger made into four patties, each of these when cooked will weigh about two and one-half ounces. Also in the meat group count one egg or two tablespoons peanut butter as one-half serving. To substitute cooked dried beans for meat, one cup cooked beans would be equivalent to one serving (two or three ounces) of meat.

Vegetables and Fruits - Count as one serving one-half cup of vegetables or fruit; or a portion ordinarily served, such as one-half grapefruit, one medium apple, four ounce glass of juice, one medium potato.

Breads and Cereals - Be sure all bread and cereals are whole grain or enriched. Read the label. Enriched rice should not be washed, but should be cooked in just as much water as it will absorb. Count as one serving one-half to three-fourths cup cooked cereal, rice, noodles, spaghetti; about three-fourths cup ready-to-eat cereal; one slice bread.

If we arrange the Four Basic Food Groups in meals for one day, we might have something like this:

Breakfast

Orange Juice - $\frac{1}{2}$ cup
Corn Flakes - $\frac{3}{4}$ cup
Egg - 1
Toast - 1 slice
Milk

Lunch

Cheese Sandwich - 2 Bread
1 ounce Cheese
Celery strips
Apple - 1
Milk - 1 cup

Dinner

Roast Beef - 3 ounces cooked weight
Mashed Potatoes - $\frac{1}{2}$ cup
Carrots - $\frac{1}{2}$ cup

Snack

Milk - 1 cup

This would include the Basic Four: Two glasses of milk, two servings from the meat group, two servings of fruit (one citrus), three servings of vegetables (yes, we count the potatoes), four servings of bread and cereals. If you read the label on a box of corn flakes, you will know whether they are "enriched" with B vitamins and iron.

The menu lacks some of the things you would ordinarily eat to make the meals more appetizing and to add more calories. Can you think of some?

Fats, such as butter, margarine, cream, bacon, salad dressings.
Sweets, such as desserts, sugar, jellies, jams.

To the menu made up of Basic Four, you might add these foods:

Breakfast

Butter for Toast - 1 pat
Bacon - 1 strip
Half and Half - 3 tablespoons

Lunch

Butter or Margarine - 1 pat
Cookies - 2

Dinner

Gravy with Roast - 3 tablespoons
Butter for Carrots - 1 pat
Tossed Salad
French Dressing - 1 tablespoon
Roll - and Butter - 1 pat
Fruit Gelatin - $\frac{1}{2}$ cup

The recommended daily dietary allowance for a woman 18-35 years old, five feet, four inches tall, weighing 128 pounds, is 2,100 calories. The food listed in the Basic Four will furnish about 1,300 calories. When adding the foods in the second list, we bring the total up to about 2,100 calories.

If you add sugar for coffee or cereal, each tablespoon of sugar will add 45 calories. One tablespoon of jam or jelly adds about 50 calories. One eight ounce glass of cola-type beverage adds nearly 100 calories.

How about these things called calories? What is a calorie?

A calorie is a unit that expresses the heat-producing or energy-producing value of a food. If we say that one teaspoon of honey has 20 calories, or one pat of butter gives 45 calories, it means that when those foods are oxidized in the body they will furnish that much energy.

Did you notice that you get more calories from a teaspoon of butter than from a teaspoon of honey, which is pure sugar? The fats and oils give more than twice as many calories, ounce for ounce, as the sugars and starches. If you think "potatoes are fattening," do you know that a medium-size baked potato yields about 100 calories, but if you add two pats of butter, you double the calories?

However, no one food is "fattening" in itself. If the total amount of food eaten in a day is more than we need for heat and energy, it is stored in the body as fat.

Perhaps your doctor has told you that he wants you on a 1,200 calorie diet. You can eat very well on this allowance if you choose your foods wisely. Here are menus for three days for a 1,200 calorie diet with two cups of milk per day. Eat only the foods listed--no additional sugar, butter, salad dressing, gravies or sauces. For instance, "baked squash" means plain squash with salt only. If you want butter on it, it must be taken from what is listed in that meal or another one.

Because butter and salad dressing add so much in flavor, we have used skim milk instead of whole milk so that more butter could be included. One cup whole milk in these menus equals one cup skim milk, plus two teaspoons butter, so if you use whole milk in these menus, you will have to take away four teaspoons butter, two for each cup.

Breakfast

Grapefruit - $\frac{1}{2}$
Poached Egg - 1
Toast - 1 slice
Butter or Margarine - 1 tsp.
Coffee or Tea

Sliced Banana - $\frac{1}{2}$ small
Corn Flakes - $\frac{3}{4}$ cup
Whole Milk - $\frac{1}{2}$ cup
Toast - 1 slice
Butter or Margarine - 1 tsp.
Coffee or Tea

Orange Juice - $\frac{1}{2}$ cup
Scrambled Eggs - 2
Toast - 1 slice
Butter or Margarine - 2 tsp.
Coffee or Tea

Lunch

Cottage Cheese - $\frac{1}{2}$ cup
Bread or Roll - 1
Lettuce
Grapes - about 12
Butter or Margarine - 1 tsp.
French Dressing - 2 tsp.
Milk - Skim - 1 cup

Cold Beef - 2 oz.
Bread - 1 slice
Sliced Tomato
Apple - 1 small
Butter or Margarine - 1 tsp.
Mayonnaise - 2 tsp.

Grilled Cheese (1 slice cheese)
Bread - 1 slice
Tossed Salad
Orange - 1 small
French Dressing - 1 tbsp.
Milk - Whole - 1 cup

Dinner

Lean Roast Beef - 2 oz.
Potato - 1 small
Baked Squash - $\frac{1}{2}$ cup
Butter or Margarine - 2 tsp.
Applesauce - $\frac{1}{2}$ cup
Milk - Skim - 1 cup

Frankfurters - 2
Sauerkraut - $\frac{1}{2}$ cup
Carrots - $\frac{1}{2}$ cup
Boiled Potato - 1 small
Butter or Margarine - 1 tsp.
Milk - Skim - $\frac{1}{2}$ cup

Beef Hash - $\frac{3}{4}$ to 1 cup
Green Beans
Cole Slaw (made with Vinegar and Milk Dressing)
Bread - $\frac{1}{2}$ slice
Pineapple, Juice-Pack - $\frac{1}{2}$ cup
Milk - Skim - 1 cup

You can see that the big difference is in the desserts: frosted cake (plain cake with chocolate icing - 370 calories) or pie (apple pie - 345 calories) take too big a percentage of the total calories, and would mean leaving out other more essential foods.

Fruits, fresh, dried, cooked, canned or frozen should have no sugar added. Use water-pack fruits such as those canned for pie making; sweeten home-made applesauce with artificial sweeteners; look for pineapple in juice-pack rather than syrup-pack. READ THE LABEL.

What about your weight? No doubt your doctor has given you some idea of the normal gain to be expected. A lot depends on whether you are over or underweight to begin with. Let's say your weight at beginning of pregnancy was normal and your doctor told you he didn't want you to gain more than 20 pounds. If you can hold your weight gain to two or three pounds in the first three months, you have something left for the last two trimesters, when the baby puts on most of his weight.

To do this, you need common sense and will power. In other words, don't eat too much. Unfortunately, there is a natural tendency to overeat, to nibble on too many between-meal snacks of cookies and rolls and doughnuts.

You're going to need milk in your diet, so if you must have something from the refrigerator between meals, have a glass of milk. A piece of fresh fruit, a strip of raw celery or carrot, or even a glass of water does a lot to stop that craving.

It's good to eat plenty of fruit and vegetables because the added bulk will help to prevent constipation.

If you are eating the kind of diet we have talked about today, you have little or no need for supplemental vitamins. An iron supplement is now considered to be of more importance. Don't be surprised if your doctor does not order vitamins, but does have you take iron.

We've talked about the foods needed in any good normal diet. This applies to you during the first half of your pregnancy. During the latter half, you will want to double your milk allowance to make one quart, or four glasses per day. The calcium and phosphorus in milk are very necessary for the baby's teeth during the fifth month of his mother's pregnancy. Add to the good basic diet one or more servings of meat and one extra vegetable, or use larger servings of the ones you eat. The nursing mother needs more of most of the foods in the four food groups, and should have six glasses (one and one-half quarts) of milk each day.

If you do not nurse your baby, you'll want to go back to the good basic diet. Don't start nibbling and overeating if you want a nice trim figure again. Cultivate the habit of eating well to stay well. If you drink milk during your pregnancy only on your doctor's orders, remember that to feel well, you need to eat well, and this includes two glasses of milk a day. Make the bedtime snack milk or fruit instead of potato chips.

When you go home from the hospital, you will find you need to plan ahead if you want to look after the baby and your husband and your house. Sometimes it will seem there just aren't enough hours in the day, and usually the very lowest point is right at 5:00 p.m., with your husband coming home, the baby to look after, and the evening meal to get.

So be good to yourself and stock your freezer with some cooked or prepared foods which need only to be heated. You can manage to light the oven, and maybe your husband will set the table. A well-stocked freezer and plenty of canned goods on the shelf are a new mother's best friend.

What are some of the foods that would be handy to have? Would you like to bring a favorite recipe from some main dish to be frozen, to our next meeting and we'll exchange them.

There is a good booklet on freezing foods put out by Iowa State University. You could pick up one from the Extension Office, or write to the Extension Service at Ames. It has lots of good pointers in it.

You'll probably want to have some nonfat dry milk in your cupboard, too. One-third cup of instant nonfat dry milk, plus water, makes one cup liquid skim milk. This is just as nutritious as fresh skim milk and lacking only

the butterfat of whole fresh milk. Depending on the size package you buy, it will cost only eight to ten cents per quart.

If you find it difficult to drink as much milk as you need for good health, you can do one of two things: Cultivate a taste for milk, or add three to five tablespoons nonfat dry milk to each glass of milk, thereby making one cup do the work of two. Better if mixed ahead and refrigerated, or with an ice cube in it (Mix and let sample?).

You may also wish to get from the Extension Service their Bulletin HE44, which gives many interesting and time-saving ways to use dry skim milk. For instance, you can make a white sauce mix of dry milk, flour, butter or margarine and salt. This is great to have on hand for soups and sauces, since all you do is add water or other liquids and cook.

LESSON III

HOW YOUR BABY GROWS BEFORE BIRTH

OBJECTIVES

To provide information about human anatomy and physiology in relation to the reproductive process.

To create an appreciation of human reproduction as a normal process.

SUGGESTED VISUAL AIDS

Birth Atlas

Anatomical Charts

Breast Structure Charts

Films: "Biography of the Unborn"
"Human Reproduction"

Booklets: "How Does Your Baby Grow?"
Gerber Products Company

"The Miracle of Life"
A.M.A. publication

OUTLINE OF LESSON

1. Review of organs of reproduction
 - (a) Female
 - (b) Male
2. Discussion of conception
3. Discussion of growth and development of the baby

TO THE INSTRUCTOR

An attempt will be made in this chapter to present some basic information about the human reproductive system. We will try to keep it simple and yet adequate. We will also try to stress the correct terms of the various reproductive organs. We believe this can be of real value when parents teach their children and answer those "difficult questions".

The level of understanding of various people in the group will vary just as each group is different. Do not feel that it is necessary to know the answer to all their questions. No one knows all the answers. You can make an effort to find out before the next class. Many questions should be referred to the family physician.

Presentation of this material in a matter-of-fact way will make it easier for you. This will be true especially in couples classes. Schematic drawings on a blackboard or a chart are useful. The materials from the New York Maternity Center are excellent. In general all of these visual aids are rather gross illustrations. They are several steps away from reality and as such are often accepted with more ease. Groups vary in the amount of discussion they wish about the anatomy and physiology of the human reproductive system. They may be very interested in the application of this knowledge in relation to sex education and the discussion may center in this area. Reference material such as that produced by the American Medical Association are excellent resource materials for parents.

To each member of the group knowledge of human reproduction takes on a new meaning. Now it is their turn to reproduce in their own image.

LESSON III

HOW YOUR BABY GROWS BEFORE BIRTH

PART 1.

One of nature's miracles is the growth of a human being from one cell to a newborn baby in approximately 280 days. Scientists will tell you that there are still many things which we do not understand about the beginning of life. That is what makes it such a fascinating story.

Today we are going to describe in a simple way how your baby grows from a single cell. To do this we will review the anatomy and physiology of the human reproductive system. We are going to use the medical term for each part and function that we discuss. We believe that this will help you understand the doctors and nurses better during your visits to the doctor's office and the hospital. You will find it easier to discuss the natural functions of your body when you use the correct name. This discussion will help you teach your children about bodily functions.

The reproductive organs of your body are found in the lower part of your abdomen; they are protected by a bony structure called the pelvis.

(Refer to the Birth Atlas, Plate 1, or to anatomical charts)

The Pelvis

The pelvis is made up of four separate bones; they are: the sacrum, the coccyx and the two innominate bones. The joint surfaces of these bones are lined with a tissue called fibro-cartilage. During pregnancy this tissue softens and becomes thicker. This process is normal and causes a looseness and relaxation of these joints. This in turn places a greater strain on the surrounding muscles and ligaments.

The female pelvis differs from the male pelvis in that it is more shallow and its bones flare out to make it broader. In a sense, the female pelvis may be called a cradle for your baby. Generally speaking, the male hips are more slender.

The Female Reproductive Organs

(Refer to Birth Atlas, Plate 2)

The external parts of the female reproductive system will be reviewed first.

Vulva is the term referring to the external genitals of the female.

Mons Veneris is the portion of the body covering the bony prominence of the lower abdomen. It is covered with coarse hair.

Labia Majora are the two outer folds of skin that protect the vaginal opening. The outer aspect is covered with coarse hair, but the inner aspect is covered with a thin membrane that is smooth and moist.

Labia Minora are the two small folds of tissue which are found inside the labia majora.

The Clitoris is a small tip of sensitive tissue found at the point where the labia minora meet. It is the external organ of sexual sensation and corresponds to the tip of the male penis.

The Hymen is a thin tissue found at the opening of the vagina. The thickness of this membrane varies greatly in individuals; it may be torn before intercourse without the woman's knowing it.

The Internal Organs

(Refer to Plates 1 and 2 of the Birth Atlas)

The Ovaries are almond shaped glands which produce the female sex cells or ova. Sometimes we call the ovum an egg. The ovaries lie on either side of the uterus. When you were born each ovary contained many immature ova. During puberty, the period of the early teens, the pituitary gland in your brain began to secrete hormones which influence the reproductive system. Through the influence of one of these hormones an egg in the ovary matures and makes its way to the surface of the ovary approximately once every four weeks. The ovaries also produce a sex hormone. At puberty this hormone produces changes such as growth of breasts and increased growth of body hair. These are called secondary sex characteristics.

Ovulation is the term used for the egg breaking away from the surface of the ovary and entering the abdominal cavity. The egg then enters one of the Fallopian tubes. When ovulation occurs, the body temperature drops slightly. This is the time to have intercourse if you are trying to get pregnant. If the ovum becomes fertilized within 24 to 48 hours after ovulation, the woman has become pregnant. The maturing of the ova and ovulation usually occur monthly from puberty until the menopause.

The Fallopian Tubes are two trumpet-shaped muscular tubes extending from the upper angles of the uterus out into the abdominal cavity. These tubes are very small at the point where they join the uterus. (Refer to Chart) The ovum enters the abdominal opening which is much larger and surrounded by fimbria or fringe-like projections. The muscles of the tube produce wave-like motions which propel the ovum toward the uterus.

The Uterus is the organ in which the baby develops. In its non-pregnant state it resembles a flattened pear. It is hollow and about one inch thick, two inches wide and three inches long. It weighs from one to two ounces. The uterus is composed of involuntary muscles, that is, muscles over which we have no control. These muscles are interlaced with one another so that the uterus is capable of great expansion.

The Cervix is the lower segment of the uterus which projects into the vagina. The glands of this segment produce mucous which forms a plug. This is expelled during labor. The cervix must dilate or open to permit the passage of your baby into the birth canal or vagina. When you are in labor you will hear the term "cervix" used frequently.

The Vagina is the muscular tube extending from the lower segment of the uterus to the outside of the body. Its walls lie in thick folds; during labor these folds expand to permit the passage of the baby. Sometimes we call the vagina the birth canal.

The Endometrium is the name used for the lining of the uterus. This lining undergoes cyclic changes. At the end of the menstrual period the endometrium is quite thin. At this time another egg in the ovary is maturing and a hormone is beginning to act upon the lining of the uterus. The endometrium then becomes thicker and filled with blood and glandular secretions. Some anatomists have said that at this time the endometrium resembles a deep velvety pile. These changes in the endometrium prepare it for a fertilized ovum.

Ovulation occurs about 14 days before the menstrual period. After ovulation the egg begins its journey down the Fallopian tube to the uterus. If the egg becomes fertilized then the prepared enriched endometrium fulfills its function of providing the egg with nourishment and a place to begin growth. If the egg has not become fertilized, the lining disintegrates and is discharged as menstrual flow. The cycle described in this paragraph is called menstruation.

Menstruation is a normal physiological function of women. In most instances it does not interfere with the usual day-by-day activities. If it does, you should consult your physician. You will want your daughter to accept it as a normal feminine body function. In all probability she will adopt your attitude. The first menstrual period is a sign of approaching maturity. Children look forward to growing up so help your daughter to regard menstruation in this manner. Boys as well as girls should understand this function.

Sometimes parents find it difficult to answer questions about bodily functions. It is best to start by answering your two-year-old child's questions directly and simply.

(Refer to the A.M.A. series on sex education)

These books are inexpensive and can be of real help to you. Your doctor or public health nurse may have others to recommend to you.

The Breasts also have a part in the reproductive cycle.

(Refer to Chart on Breasts)

During your pregnancy you will notice that your breasts become larger and the pigmented area around the nipple, the areola, becomes even darker. Frequently the nipples become sensitive and tender. Late in pregnancy some milk may leak from your nipples. The milk is stored in reservoirs under the areola so that if you nurse your baby, he will have to have this pigmented area in his mouth in order to get your milk. If your skin is thin, veins may show through the skin.

The size of the breasts depends on hormones and the amount of fatty tissue present. Size does not in any way indicate their ability to secrete milk. A woman with small breasts may still have an adequate amount of breast milk.

The breasts contain no muscles to help hold them up so it is important that they be supported with a good brassiere.

The Male Organs of Reproduction

(Refer to Maternity Centers Chart)

The male organs, too, are divided into internal and external organs. They are physically closer to the urinary system than in the female.

The External Organs

The Penis is a cylindrical structure. It is sensitive to touch and is covered with a loose elastic type skin. The urethra runs through this organ. The distal end of the penis or the head is covered with a fold of skin called the foreskin. Circumcision is the removal of the foreskin. Today most boy babies are circumcised shortly after birth.

The Scrotum is a sac-like organ containing the testes. It is here the sperm or sex cells are formed. The testicles also produce a male hormone. At puberty this hormone produces changes in the boy, such as a deeper voice and the increased growth of hair on the body. They are called secondary sex characteristics.

The Internal Organs form a system of excretory glands and ducts. They are: Vas-deferens - a duct or tube extending from the testicle to the urethra. The spermatozoa or sex cells travel from the testicles to the urethra through this duct.

Seminal Vessicles are inside the pelvis. They are pouch-like organs near the bladder. The seminal vesicles store sperm cells and seminal fluid. The seminal fluid is produced in this organ.

Prostate Gland is at the junction of the bladder and the urethra. It produces a secretion for the male sex hormones.

The term ejaculation is used to describe the passage of semen through the penis because it leaves the body through an expulsive thrust. The powerful muscles in the tube-like organs we have described make this action possible. The amount of semen varies, but about 200-400 million spermatozoa may be present in one ejaculation.

Nocturnal Emissions or "wet dreams" is the term used to describe the passage of extra semen through the urethra to the outside of the body. They usually occur during the night, they are normal and cannot be controlled voluntarily. Most boys begin to have nocturnal emissions from 12-16 years of age. Just as girls should have knowledge about menstruation boys should be given information about nocturnal emissions.

(Recess period if desired)

PART 2.

Conception, Growth and Development of the Baby Before Birth.

Margaret Shae Gilbert in her book "Biography of the Unborn", says, "Life begins for each of us at an unfelt, unknown, and unhonored moment when a minute, wriggling sperm plunges headlong into a mature ovum or egg".

(Refer to Plate 3 of the Birth Atlas)

Earlier in our discussion we pointed out that in the adult woman usually only one egg matures during the menstrual cycle. This economy of nature is counterbalanced, however, by the millions of sperm cells that are produced by the male. During sexual intercourse as many as 200-400 million sperms are found in the seminal fluid that is deposited in the vagina.

The mature ovum is the largest cell in the body, it can be seen by the naked eye; the sperm is the smallest. The sperm, as you can see, has a threadlike tail, this tail makes side lashing movements which propel it forward. Although a large number of sperms are deposited in the vagina, comparatively few of them make the journey through the uterus to the portion of the Fallopian tubes where conception occurs.

When a sperm reaches the egg, the head penetrates the tough outer covering of the egg and the tail drops off. Only one sperm penetrates the egg; no one knows why only one enters the egg.

HEREDITY

The moment conception or fertilization takes place the sperm and ovum unite so completely that all traces of the sperm are lost.

At this time all the questions that heredity decides, such as the color of his hair, sex and color of his eyes, are settled for your child.

Mother and father make an equal contribution to the characteristics of their baby except in one aspect. Scientific studies indicate that the sperm cell determines the sex of the baby. Of course you are eager to know whether you will have a boy or a girl, but so far, there is no simple way of determining this before birth. You will be happier if you plan for either a boy or a girl. Choose names for both a boy and a girl and buy clothing that will be suitable for either sex. Small children can sense whether or not you are satisfied with them. To avoid disappointment for either of you, and to make your child feel secure be ready to accept either a boy or a girl. Each child is unique in his own way, your task is to help him achieve his maximum potential.

TWINS OR TRIPLETS: What are your chances?

Twins are born about once in every 86 pregnancies, but triplets are born only once in every 6,400 births.

There are two kinds of twins, identical and fraternal. Occasionally two ova leave the ovary at the same time. If both of these ova are fertilized you will have fraternal twins. These twins may not be of the same sex and they may be as unlike as any brother or sister. Identical twins come from the same ovum and sperm; the ovum divides after it has been fertilized. These twins are always of the same sex and look so much alike that sometimes even their mothers have difficulty in identifying them.

The Growth and Development of a Baby

(Refer to Nutrition)

Immediately following fertilization of the ovum, it begins to divide. During these early days cell division is very rapid, more so than it will ever be again. Scientists call this collection of cells an embryo. This embryo is very much alive and very much your baby. At the end of the first week the embryo implants itself in the lining of the uterus.

SECOND WEEK OF LIFE

During the second week of life several changes have occurred. The cluster of cells is beginning to divide into three groups. One group of cells will grow and develop into your baby; another group will form the placenta or afterbirth; the third group will develop to form the membranes which surround your baby until he is born. This membrane will hold the fluid around your baby. It is commonly called the "bag of waters".

FOURTH WEEK OF LIFE

By this time you probably suspected that you were pregnant. All this time your baby has been growing very rapidly. His growth has not been in length or weight as he is only one-sixth of an inch long, but in the development of the internal organs such as the brain, digestive tract, lungs, liver and heart. The heart is beginning to function, although your doctor will not be able to hear it for several more weeks. The head and brain have also been developing very rapidly.

SIXTH WEEK OF LIFE

Now your baby is about one-half inch long. The face is beginning to take more definite shape. The arms and legs are forming. Notice how far up on the body the legs are placed. They will soon appear to have moved down and back to assume their normal position.

TWELFTH WEEK OF LIFE (about two and one-half months)

About this time you will notice that your abdomen is beginning to enlarge and your skirt bands have begun to get a bit tight. Your baby is still very small. He is about two and one-half inches long and weighs about one-half to one ounce. There has been further development of all organs. The nails and fingernails are beginning to appear. The baby's skin is thin and transparent.

With the use of electronic devices we are able to detect a heartbeat at this time.

The membranes and fluid surround your baby. You might ask, "Why doesn't my baby drown in this fluid?" There is no danger of this, as your baby does not breathe air. His oxygen supply comes through your blood. The fluid serves as a cushion or shock absorber from the jolts and bumps that he receives.

(Refer to Birth Atlas, Plate 6)

The placenta or the "afterbirth" has formed. This is a complicated structure usually attached to the upper portion of the uterus. It is often called the afterbirth because it is expelled from the uterus after the baby is born. The baby is connected with the placenta by means of the umbilical cord which extends from the umbilicus or navel to the placenta. The cord contains blood vessels which project into the placenta, but do not enter the mother's circulation. Through the placenta food substances and oxygen pass from the mother's blood to the baby's and waste products and carbon dioxide pass from the baby's blood to the mother's blood. Therefore, the placenta performs the duties of the baby's kidneys, lungs, and gastrointestinal tract.

You might have wondered about the old superstition of marking your baby. People used to think this resulted from something the mother ate, saw or thought about. Since there is no direct connection between the mother's and baby's blood stream or nervous system, your thoughts or the things you see have no effect on the way the baby is formed.

FIFTH MONTH

Your baby is now about eight inches long and weighs about ten ounces. About this time the doctor begins to hear the baby's heartbeat through the stethoscope. You are beginning to feel the baby's movements as he stretches his arms and legs. These first movements are commonly called quickening. This is an important event for you since the baby has probably become more real to you by now.

People of ancient times were very much concerned as to when a baby became a human being. They held heated discussions about this matter. Late in the 18th century the Christian Church decreed that life began with conception. According to our present scientific knowledge, we believe that a baby becomes a living being at the time of conception.

Your abdomen now is getting large enough to be quite noticeable, and it will be enlarging quite rapidly from now on. In all probability, you are wearing maternity dresses.

SEVENTH TO NINTH MONTH

(Refer to Birth Atlas, Plate 7)

Your baby at seven months weighs about three to three and one-half pounds. He is about 16 inches long. His skin is pink and covered with fine soft hair. There is little fat under the skin so he looks

thin and wrinkled. A creamy substance called vernix is beginning to collect on his skin.

If he were born this month his chances of survival would be quite good. However, each additional week in the uterus increases his probability of survival. A baby born at eight months has a better chance of living than one born at seven months.

During these last two months he is growing fast in both length and weight. His internal organs are already fully developed but will continue to mature as his expected birth date approaches.

By the seventh month the baby has usually assumed the head-down position and most often stays in this position until he is born. Notice how his arms and legs are folded so that he fits very snugly into his "home".

During these last few months his movements are real thumps and then at times you feel no movement at all. Some doctors think the baby has periods of waking and sleeping.

FULL TERM

(Refer to Birth Atlas, Plate 8)

A full term baby is a baby which has been growing in the uterus approximately 40 weeks. His average weight is seven to seven and one-half pounds and his average length is 20 to 21 inches. Boys usually weigh a few more ounces than girls.

THE BIRTH DATE

How did your doctor decide the date he thinks your baby will be born?

In the human being the average time from the last menstrual period to birth is 280 days. Since it is difficult to determine the date of conception, doctors have evolved this scheme which gives the approximate birth date. To figure when your baby is due count back three months from the date of your last menstrual period and add seven days.

Here is an example: If your last period began May 25, count back to February 25, and add seven days. Your baby can be expected to arrive about March 4th. We say about this time. It is wise to expect your baby any time from one to four weeks before or after the estimated date. However, most babies arrive within a week of the expected time.

Relief for Some Common Discomforts of Pregnancy

(Demonstration and Practice Session)

Good body mechanics will help to reduce fatigue. There are tricks to lifting, picking up objects, and even climbing stairs. During pregnancy, the increased weight of the pregnant uterus changes the usual body stance. To compensate, the lumbar curve of the spine is exaggerated, and often a backache results.

Good posture is one way to reduce backache; pelvic rocking is another method. Some mothers have called it the miracle exercise.

Frequent short rest periods during the day will help to reduce fatigue. If you are working out of your home, lie down for a short period before you get dinner. This is a good time to practice relaxation.

If you have been on your feet much of the day, elevate your feet and legs when lying down.

We will demonstrate some comfortable positions when lying down.

SUMMARY

In this lesson we have discussed the organs of reproduction and the part each plays in the process of bringing a new being into the world. From this lesson you probably have a better understanding of the stages of development of your baby as it grows in your uterus. We think this will make pregnancy more meaningful to you and will help you understand your baby better even before it is born.

1. The first part of the paper is devoted to a general discussion of the problem.

2. In the second part, we consider the case of a single particle.

3. The third part is devoted to the case of a system of particles.

4. In the fourth part, we consider the case of a continuous medium.

5. The fifth part is devoted to the case of a system of continuous media.

6. In the sixth part, we consider the case of a system of particles and continuous media.

7. The seventh part is devoted to the case of a system of particles and continuous media.

8. In the eighth part, we consider the case of a system of particles and continuous media.

9. The ninth part is devoted to the case of a system of particles and continuous media.

10. In the tenth part, we consider the case of a system of particles and continuous media.

11. The eleventh part is devoted to the case of a system of particles and continuous media.

12. In the twelfth part, we consider the case of a system of particles and continuous media.

13. The thirteenth part is devoted to the case of a system of particles and continuous media.

LESSON IV

BABY'S BIRTHDAY

OBJECTIVES

To give information that will be helpful in understanding the process of normal labor and delivery.

To give parents an opportunity to ask questions and to discuss aspects of normal labor and delivery that are of concern to them.

SUGGESTED VISUAL AIDS

Birth Atlas

"Knitted Uterus"

Directions available from Maternity Center, New York

Films: "A Normal Birth"

"Labor and Delivery"

Samples of a birth certificate

Booklet: "How Does Your Baby Grow?"

OUTLINE OF LESSON

Preparation for Childbirth

Signs of Beginning Labor

Labor: First Stage
Second Stage
Third Stage

After Delivery Care

TO THE INSTRUCTOR

For parents of a first child the birth process is charged with feelings of elation, anxiety and fear. The mother may be quite concerned about her behavior during labor and delivery. Give parents an opportunity to discuss their feelings and ask questions. Do not permit a discussion if feelings degenerate into a "gripe session" or permit parents to discuss an emotionally charged issue to the embarrassment of others. Try to develop sensitivity to the needs and mood of the group. This comes about as you gain experience. We believe it is important to give factual materials about the mechanics of labor and delivery. Many women who are multiparous also need this kind of information.

In a discussion period you may need real skill in steering them away from the abnormal. Women who have had a satisfying experience in delivering a child often make significant contributions to the inexperienced. It is important to leave the impression with each parent that their behavior during the birth process will be acceptable to doctors and nurses.

When you discuss hospital practices, know what is done in the local hospitals. This is particularly true if you have been teaching relaxation techniques during labor. The mother in labor must have support from the hospital nursing personnel to make maximum use of these techniques.

Choose your visual aids carefully. Again, one step away from reality may be more acceptable to your group. These aids may seem crude to the professionals, but be more acceptable to the group than a film depicting actual childbirth.

LESSON IV

BABY'S BIRTHDAY

Your baby's birthday will be an event that will be worth all the birthday cakes you will be making and decorating in future years. This is the day that you have been anticipating with hope and joy and probably some apprehension. This is natural. We all have fears of the unknown and of discomfort.

How does labor begin? How will I know when to call the doctor? These are normal questions that we shall talk about today.

No one knows just what initiates labor. We seldom know the exact time that it begins, but we do know the signs of approaching labor. During the last few weeks of pregnancy you may be aware of a periodic tightening of the muscles of the uterus. These are contractions. If you put your hands on your abdomen you can feel the uterine muscles become firm. The contractions may or may not be painful. Usually they are not regular. Sometimes they last for an hour or so. This discomfort is sometimes relieved by walking.

During the last week or ten days before your baby is born he settles lower into the bony canal of your pelvis. Another expression used is, "he drops." Sometimes it is called "lightening." All of a sudden you may notice that you can breathe more easily. However, now that your baby has settled down into the pelvis there will be some pressure on your urinary bladder and you will notice that you are urinating more frequently. You may find that you have some throbbing in your lower abdomen and legs. After this has happened it is best not to travel out of town or too far away from home. It is best not to start a long-term project such as housecleaning. You may go to the hospital before it is completed. Some women have a spurt of energy just before labor begins. This may be the reason you decide to start housecleaning!

Labor may start in a variety of ways. No one can tell what you will notice first.

Your labor may begin with contractions. You may notice a heaviness or sensation of cramping or discomfort that starts in your back and travels around to the front, or the discomfort may start in the lower abdomen and then move toward the back. These contractions may feel like menstrual cramps. Each contraction usually lasts only a short time, about one-half minute. They recur at regular intervals which may be 20 to 30 minutes. As time goes along the intervals shorten and the contractions become stronger.

The bag of water or membranes that surround your baby may rupture. The loss of fluid is not like urinating as you have no control over it. It may be a sudden gush or a slow leakage of fluid. However, the membranes usually rupture after you have become aware of contractions.

If they do rupture early, labor usually progresses rapidly; you will have no special difficulty because of this as not all the fluid escapes. Always let your doctor know when your membranes have ruptured even if you are not having contractions.

You might notice a slight blood-tinged mucous discharge from the vagina. This means you are starting to pass the plug of mucous from the cervix.

When Shall I Call My Doctor

This is one of the things your doctor will discuss with you as your baby's expected birthday comes nearer. He will probably give you definite instructions as to when he wishes to be called. He will possibly tell you not to eat if you think you are in labor. He will want to know when regular contractions began, if your membranes have ruptured, and if you have passed the mucous plug or have had any bleeding. If anything unusual happens, call your doctor rather than worry about it.

When You Arrive at the Hospital

Hospital routines vary; some permit pre-registration so that neither you nor your husband will be detained in the admitting office. It is a good idea to find out how the hospital you are going to handles this. Your doctor may be able to tell you. It is also a good idea to know what door to go in at 2:00 a.m., in the event you go at that time.

After arriving at the hospital you will be escorted to the maternity department and a nurse will help you to get undressed. The nurse will ask you some questions about yourself, in order to provide better care for you during the next few hours. You will be asked what date you expect your baby, whether or not your membranes have ruptured and how often you are having contractions. You will have your temperature, pulse rate and blood pressure taken. The nurse will also listen to your baby's heartbeat; you can ask her to let you listen to them if you wish.

After these things are done you will be "prepped." This means that the nurse will shave or clip the genital area in preparation for delivery. If your doctor ordered an enema it will be given at this time.

If you are in a large hospital a resident doctor and your own doctor will be in to see you and to examine you. In the smaller hospitals your own doctor will do this, as there are no resident doctors in the small hospitals. Also in the small hospitals the nurse will be assuming more responsibility for your admittance examination.

In Iowa your husband can stay with you when you are in labor. He can be of real help to you by acting as a coach when you use such techniques as relaxation and abdominal breathing. Most women feel more at ease when someone is with them during this period. We feel husbands have a very important role to play at this time.

Stages of Labor

(Refer to Birth Atlas, Plates 8, 9 and 10)

The process of labor has been divided into three stages. The first stage is that period when the cervix opens, or dilates, sufficiently to permit the baby's head to pass into the birth canal. You will most likely be in this stage when you enter the hospital. The second stage begins when the baby's head slips into the birth canal and ends when the baby is born. The third stage is from the delivery of the baby until the placenta or afterbirth has been expelled.

During labor the nurses will try to stay with you as much as they can. It is part of hospital practice to check your blood pressure and pulse at intervals. The doctors and nurses will check your baby's heartbeat with a stethoscope. If you or your husband would like to listen in on your baby, ask the nurse. At intervals the nurse or your doctor may do a rectal examination. Sometimes they are uncomfortable, but they do give valuable information about your progress.

Although you have no control over the contractions you can help yourself through:

1. Acquiring knowledge about yourself and the process of labor and delivery. This will do much to reduce fear. Fear tends to produce tension and tension reduces the effectiveness of contractions.
2. Use of the techniques of relaxation and abdominal breathing. Relaxation will give short periods of rest between contractions. The theory of abdominal breathing is that the abdominal cavity is expanded giving the uterus more room during a contraction.
3. Pelvic rocking and/or back rubbing often reduces back discomfort.

The latter part of the first stage of labor is known as the transition period. At this time the cervix completes dilatation and the baby's head slips into the birth canal. The transition phase usually consists of 10-20 contractions. At this time firm pressure on the small of the back helps. You do not do abdominal breathing now but change to slow, deep chest breathing.

Most women will desire some medication during the first stage of labor. Your doctor will decide what kind and how much you should have. Do not hesitate to ask the nurses about it. Sometimes the right medication at the right time can be most helpful to you in terms of helping yourself. However, medications are not usually given until the cervix is fairly well dilated.

Second Stage

When the baby's head has slipped into the birth canal the second stage of labor begins. It lasts until the baby is born. (Plate 10 in Birth Atlas)

When this stage begins you will notice a change in the character of your contractions. You will have a desire to push or as we say, "bear down." You will feel pressure on your rectum as though you are going to have a bowel movement. Now, under the direction of your doctor or nurse, you can help yourself by pushing or bearing down with each contraction. (Refer to Charts 10, 11, 12 and 13 in Birth Atlas)

You will feel better, and become optimistic. Your respiratory pattern will change. When a contraction starts take a deep breath and bear down.

It will not be necessary for you to try and remember all of these details; the nurse in the hospital will help you. However, knowing what to expect will make you feel more at ease.

The process of labor and delivery is fascinating. From Charts 10, 11, 12 and 13 notice how the baby's head will turn in order to adapt itself to the birth canal.

The Delivery Room

When your baby is about to be born you will be taken into the delivery room. You will be helped on the delivery table. When you go on the hospital tour you will see what it is like. It is much like an examining table in the doctor's office.

Your legs will be placed in stirrups and you will find a convenient bar at your sides to grip. Your wrists are usually fastened to the table, this is for your own protection.

Your lower abdomen, the inside of your legs and the genital area will be cleansed and an antiseptic solution applied. Following this you will be draped with a sterile sheet. Because of this your movements will be restricted. While you are being prepared your doctor will be scrubbing his hands. When you see him he will be wearing a mask, cap and sterile gown and gloves. The nurses will wear similar attire.

You may have some kind of anesthesia. Ask your doctor to discuss anesthesia with you at one of your visits. There are several factors which affect the kind of anesthesia you will receive. You may have a local anesthesia and you will be conscious when your baby is born. If you are awake and want to see your baby born, request this. Most hospitals have a mirror that can be adjusted so you can see.

The nurses will be busy, too. One nurse may be with you checking the heartbeat of your baby continuously, while another will be getting the necessary equipment ready.

If the doctor feels that the tissues may tear, he will make a cut at the vaginal opening. This is called an episiotomy and after the baby is born it will be closed with stitches. It is better to have a surgical cut made than to allow the tissues to tear.

After the baby is born his head is lowered to permit fluid and mucous to

drain out of the nose, mouth and throat. The doctor usually suctions this area with a small bulb syringe. The cord is cut and tied; this is a painless procedure for both you and the baby. After you have seen your baby, and the doctor has looked him over, he is put in a warmed bassinet.

About this time you will receive a medication by hypo. This is given so that the uterine muscles will contract, this in turn will contract the blood vessels thereby controlling or preventing excess bleeding. If you have decided not to breast feed your baby, you will receive a medication to suppress lactation. This is why it is important to make this decision during your pregnancy, and to let your doctor know what you wish to do.

The third stage of labor is the time from the baby's birth until the delivery of the placenta or afterbirth. (Refer to Birth Atlas, Plate 14) The placenta must be expelled as it no longer has a purpose to fulfill. Under normal conditions the uterus contracts after delivery and you will lie quietly for a few minutes. Soon the placenta separates itself from the wall of the uterus and is expelled by a contraction. You may continue to have rhythmical contractions for a few days after the baby is born. These are often called "after pains."

Before you and your baby leave the delivery room, your baby will have some form of identification placed on him. Most hospitals use a plastic bracelet. The law requires that all babies have a medication placed in their eyes to prevent infection. This, too, will be done before he leaves the delivery room. You most likely will be awake to see and hold your baby before he is taken to the nursery.

After Your Baby is Born

You will remain in the delivery room for awhile after your baby is born. The nurse may give you a sponge bath, and put a clean gown on you. You have been working hard and you will be tired.

During the time you are in the delivery room after the birth of your baby the nurse will be watching you quite closely and will often place her hand on your abdomen to feel the conditions of your uterus. She may massage it to keep it firm. She will take your blood pressure frequently, for the first hour or two, after your baby is born. This is routine procedure for your safety. Do not be worried or concerned about it.

In most hospitals your husband will be waiting for you in your room. Most of the time it is possible to bring your baby into your room so the three of you can have some time together.

The Postpartum Period

The period after delivery is called the postpartum period. There are no precise time limits but six weeks is an average time. During the first days after delivery the uterus can often be seen and felt by the mother. Some women have been concerned about having a tumor. Over the period of about six weeks the uterus will return to normal size. This process is called involution.

For the first few days following delivery you will have a fairly heavy bloody discharge. After about a week the discharge becomes light yellow or white. This discharge is called lochia. It is similar to the menstrual flow in that it is composed of blood, mucous and other cells from the uterus. It will continue for about three to four weeks. You will need to wear a pad during this time. Do not use tampons since they may introduce infection.

Your regular menstrual periods may not return until six weeks or longer after the birth of your baby. If you are nursing your baby it may be longer. However, even though you may not have menstruated you can become pregnant during the nursing period. Your periods may be irregular during the first few months after delivery.

For the first few days after delivery your breasts will secrete a substance called colostrum. This is not milk, but does have a nutritive value. Breast milk usually comes in from the second to fifth day. Your baby will do very well without a formula until your supply is established. It usually takes several days before you have a good supply of milk. If you are not going to breast feed, your doctor can give you a medication that will help your breasts to dry up more quickly. In any event, a good supportive brassiere will help you feel more comfortable.

The nurses will help you learn to care for yourself when you are in the hospital. If you have stitches (and you probably will) you will receive treatment for them.

You will feel better both physically and mentally if you practice good personal hygiene. Continue bathing regularly, but your doctor will give you instructions regarding tub baths. Stitches often make you feel uncomfortable even after you have gone home from the hospital. If you have stitches you should ask your doctor about their care. Your doctor will also give you instructions regarding intercourse.

A girdle that will help to support your abdominal muscles may make you feel better, but will not improve their tone. Exercises are helpful in restoring your abdominal muscles to normal. Your doctor will give you instructions as to when to start and what kind to do.

You may have some constipation for the first few weeks after your baby is born. This is a common experience; if you need a laxative ask your doctor.

You will most likely feel like eating a regular meal shortly after your baby is born. In fact, you will probably be hungry. You will need to continue eating the same kinds of foods that you needed before the baby came. You need those foods particularly high in protein, calcium and vitamins to help you regain your strength and give you energy to care for your recently enlarged family. It will be a good idea to continue with the family meal habits that you established during your pregnancy.

The average mother who is nursing her baby needs a larger serving of

protein food; this can be more milk and meat and meat substitute. On the whole you can eat the same food as you have always eaten, but sometimes certain foods such as pickles and chocolate in excess may upset the baby's digestive system.

Don't be surprised if you become rather upset over small things the first few days after your baby is born. This often happens. You may not feel very "motherly" - this will come. We are not all alike, some of us get along better with tiny babies. Some mothers like six month old babies better, yet this does not make one mother better than the other. Each one has a unique contribution to make to her own baby. Try to accept the ups and downs of the first few days with patience, they will disappear or be less intense as the days pass.

It is important for you to plan to visit your doctor about one month to six weeks after your baby is born. Your doctor will designate the time he wishes you to come in.

In this session we have attempted to prepare you for the delivery of your baby and your hospital stay. We have discussed how labor might begin and how it normally progresses. We have tried to acquaint you with some of the routines of a hospital, but each hospital is certain to be slightly different. We have also briefly discussed how you may feel after delivery. We expect you may have several questions about this lesson, which we may or may not be able to discuss at this time.

The first part of the paper discusses the importance of the study and the objectives of the research. It also provides a brief overview of the methodology used in the study.

The second part of the paper presents the results of the study. It includes a detailed description of the data collected and the analysis performed. The results are presented in a clear and concise manner, with appropriate use of tables and figures.

The third part of the paper discusses the implications of the study. It highlights the key findings and their significance for the field of research. It also provides recommendations for future research and practical applications.

The fourth part of the paper concludes the study. It summarizes the main points of the paper and reiterates the importance of the research. It also provides a final statement on the findings and their implications.

The fifth part of the paper is a reference list. It includes a comprehensive list of all the sources cited in the paper, formatted according to the appropriate style guide.

The sixth part of the paper is an appendix. It contains additional information that is relevant to the study but is too detailed to include in the main text. This may include raw data, detailed calculations, or additional figures.

The seventh part of the paper is a glossary. It defines the key terms and concepts used in the paper, ensuring that the reader has a clear understanding of the terminology.

The eighth part of the paper is a list of figures. It provides a detailed description of each figure and its location in the paper. This helps the reader to find the figures quickly and understand their relevance to the study.

LESSON V

THE HOSPITAL

OBJECTIVES

1. To visit the maternity department and see the equipment needed for the mothers' and babies' welfare.
2. To meet hospital personnel and learn about admission requirements and practices. Knowledge of the probable situations the prospective parents may encounter can do much to reduce fear and apprehension.

Suggestions in Relation to Tour

You may prefer to show slides of the hospital area and explain the usual admission procedure.

TO THE INSTRUCTOR

The Value of Hospital Tours

Tours are a method of furnishing firsthand information to supplement and enrich classroom instruction. They also provide familiarity with entrance, location of the maternity floor and admission procedure. If it is possible for the prospective parents to meet some of the staff it will mean that a familiar person will be with them during labor. Such preparation can provide real comfort in time of stress.

Limitations and Problems

It takes time to make plans and arrangements, particularly if more than one hospital is involved. Transportation may be a problem as well as finding a time suitable to both the hospital staff and the mothers.

Organization and Planning

The first consideration must be given to the hospital staff including administrator, doctors and nurses. If you are a public health nurse, relationships must be established with this group of people before plans can be started, then you can explain to them how this tour will benefit both the patient and the hospital. Tours must be planned for the convenience of the hospital, taking into consideration work schedules, visiting hours and availability of personnel in the hospital to manage the tour.

Detailed information should be exchanged in advance between the instructing nurse and the staff member who will conduct the tour. Discretion should be used in explanation and demonstration of procedures so as not to alarm the prospective parents.

Be sure to give the parents an opportunity to meet personnel in the hospital such as the supervisor of the obstetrical department and the hospital administrator. After the tour give the parents an opportunity to discuss and to ask questions in relation to equipment, routines, etc.

When classes are held outside of the hospital, often the hospital personnel make a party out of the tour.

Some hospitals have taken a series of pictures, beginning with the admission of the mothers through to discharge of mother and infant. The pictures may or may not include a patient on the delivery table or in the labor room. Some hospitals with a busy maternity department find this method works better for all concerned. The pictures are made into slides and then projected on a screen. This permits discussion of an area or activity as it occurs in the real life situation.

When parents do go on a tour they may wear patient gowns to cover street garments when going into labor and delivery suites or when standing around the nursery window.

If at all possible first-time parents should be permitted to watch the

newborn infants from the nursery windows. Some couples may not be familiar with the behavior of a newborn infant. It can be a good experience to watch one crying. This may provide a good base for the class session on the newborn infant.

LESSON V

THE HOSPITAL TOUR

In Iowa most of our babies are born in the hospital. Home deliveries require a great deal of preparation, and getting help for a home delivery is almost an impossibility. Hospitals have all of the equipment that is necessary for your care and your baby's care.

Hospital arrangements should be discussed with your doctor quite early in pregnancy. Your husband might like to go with you on this visit. Talk over the accommodations you would like and can afford. Many young mothers prefer the companionship of a semi-private or ward room to that of a private room. Your doctor may designate the hospital that he prefers.

Undoubtedly you have read of rooming-in or know of some mother who has roomed-in with her baby. This is a plan so that the mother and baby share the same room. In some hospitals the baby is in the room with the mother night and day. In other hospitals he is with the mother in the daytime and spends the night in the nursery.

Rooming-in requires special arrangements. Not many hospitals in Iowa provide rooming-in arrangements. If the hospital in your community does, and you would like this arrangement, talk it over with your doctor. It may be necessary for you to have a private room.

Not all mothers want rooming-in. The mothers who prefer rooming-in feel they learn to know the baby before they go home. Other mothers feel they are not ready to assume that much responsibility so early. For the mother with her first baby this can be an opportunity to learn how to care for the baby while there are nurses near her all of the time.

There is no right or wrong way about this. The important thing is do you want it and is your local hospital able to provide this service. Not all hospitals can.

Late in your pregnancy write down some telephone numbers such as where to find your doctor after office hours, the number of the cab company if you plan to take a cab to the hospital. If you have other children at home, you will need to make final arrangements for them.

What to Take to the Hospital

You will be wise to pack your bag beforehand. If you cannot pack all of the things, make a list of your needs and you can check them off when you are getting ready to go.

Nightgowns or pajamas - You will need two or three depending upon the length of your stay and laundering facilities at home. Usually the shorter length gowns are more comfortable. Hospital gowns are usually available for your use. Some hospitals now have facilities for laundering gowns or pajamas.

Bed jacket - Whether you will use a bed jacket will depend upon the style of your gowns and the time of year. If it is cool you may need it for warmth.

Robe or housecoat - This is a must. You will need it for excursions down the hall.

Slippers - These are also a must. Some types of casual shoes might substitute for slippers.

Brassiere - You will need two or more. If you plan to nurse your baby bring your nursing brassieres, and if not, you will still need some good support. The brassieres you have worn during your pregnancy will usually do very nicely. Plan to wear your brassieres even while you are in bed. They will become soiled so you will need to make arrangements for laundering them.

Sanitary belt - One will do. You need not bring sanitary napkins as the hospital will provide these. However, you will need some at home when you return from the hospital.

Toilet articles - You will need a comb, brush, toothbrush, toothpaste, cosmetics and cleansing tissues. Cologne, a manicure set or hand lotion are nice to have, but are not essential.

Today's hospital stay is short so you will not want to bring too much with you. A clock or watch, a fountain pen, stationery, stamps and a book or magazine are nice to have.

Clothing for your homecoming - you will have the clothes you wore to the hospital, but you may want to wear a different dress when you go home, as you will be very tired of your maternity clothes. Just a word of caution: Don't bring a tight fitting dress. It will take some time to regain your waistline.

Baby's clothes - After your own bag is packed you will want to pack clothes for your baby's homecoming. Put his things in a separate bag or box. Leave this at home, but be sure your husband knows where you have put your baby's clothing.

Your baby will need:

Two or three diapers

One shirt

A gown or wrapper

Sweater and cap if the weather is cold

Blankets, depending upon the time of year

Safety pins

About Birth Certificates

Before you leave the hospital you will be asked for the information necessary to complete your baby's birth certificate. All states have laws requiring registration of a birth. This is an advantage to your

child. Someday in the future he will need his birth certificate, such as when he starts school, when he gets a job or travels to a foreign country.

The information about the birth is sent to the Records and Statistics Division in the Iowa State Department of Health. There these records are carefully preserved. About three months after the baby is born you will receive a notification from the Iowa State Department of Health that the birth has been registered. You will receive a copy to check for accuracy. See that the birth date is correct and that the name is spelled exactly right.

After you check the copy, return it with \$1.00 to the Records and Statistics Division of the Iowa State Department of Health, Des Moines, Iowa 50319. You will then receive the official birth certificate.

You may receive a certificate from the hospital that your baby was born there, giving the date of birth. This, however, is not an official birth certificate.

LESSON VI

BABY MEETS THE FAMILY

OBJECTIVES

1. To acquaint parents with the characteristics of a newborn infant.
2. Discuss needs of the newborn infant.

SUGGESTED VISUAL AIDS

1. Film: "Baths and Babies"
2. Plate 16--Birth Atlas: "Newborn Infant"
3. Booklet: "Infant Care"

OUTLINE OF LESSON

1. Physical characteristics of a newborn infant
2. Medical supervision
3. Introducing a new baby to the family
4. Caring for a new baby

TO THE INSTRUCTOR

This session may be of more value to couples who are to be "first time parents." It is good if the hospital tour can precede this meeting. Prospective parents should have an opportunity to watch babies in the newborn nursery. If the infants cry when parents are watching this can become a good topic for discussion later.

Actual demonstrations of the baby bath and formula preparation will become more meaningful when done in the hospital after the baby is born. This may not be possible in all hospitals and the nurse teaching the class will be the best judge of this.

Some nurses use a baby doll when discussing the characteristics of a newborn infant and its care. You may wish to have equipment on display, this may stimulate discussion about costs and suitability of nursery equipment.

Feeding, breast feeding versus bottle feeding, is often a topic parents want to talk about. Each couple should be helped to feel their decision is the right one for them. In this decision relatives and friends don't count. Be careful that your bias isn't showing either.

In the event this is your last class you may wish to have parents help you evaluate their experience. Parents can give you ideas about:

1. The material most helpful or interesting to them.
2. What changes would they make in content.
3. Is the classroom comfortable and convenient.

LESSON VI

BABY MEETS THE FAMILY

Did you ever watch a young mother and father going home with their first child? You can sense that it is a happy time for them.

Giving birth to a child automatically makes one a parent. Becoming a father and a mother in the true sense of the word is a career in itself. It takes love, patience and common sense to create a good home for a child. Both mother and father have needed the preceding nine months to prepare themselves for this job. When these months have been happy ones, both of you have put "money in your emotional bank" to draw on. You will need it because a newborn baby can only take. They are not able to give love and affection to you.

What is a Newborn Baby Like?

The new baby is called a newborn until he is four weeks old. After that he is called an infant. We know, however, that no matter what we call him, he is unique. There never was and never will be another baby just like him even though he resembles every other newborn.

Newborn babies differ in size, weight and all other physical characteristics. The average baby weighs about seven pounds and is about 19 inches long. However, there are exceptions at each end of the scale from the very tiny to the very large newborn.

As you look at your baby his head will appear large in contrast to the rest of his body, and it is. It is almost one-fourth as long as his entire body. As your baby grows his head will grow relatively less than the rest of his body. When he has reached adulthood it will be only twice as large as it is now. Now his forehead is high, and his head may be somewhat "pointed" or oblong in shape. This is the result of being molded in the process of being born. This will disappear in the first few weeks of life. The soft spot at the top of his head is called a fontanel. You need not worry about it as it is covered by a tough membrane.

At birth most babies have only a small amount of hair. During the first few months of life this is usually replaced by a heavier growth which may be of a different color and may not be at all like the hair the baby will have eventually.

Practically all babies appear to have blue eyes at birth. The permanent coloring develops later. The newborn cannot coordinate his eye movements so he may look "cross-eyed" at times. He may not produce tears when he cries until he is about two months of age. Perceiving light is about the best his eyes can do at birth but within two months he will be able to recognize a number of familiar objects.

The newborn's hearing equipment is more nearly complete than his visual

equipment. At birth he can hear loud noises which may startle him or make him cry. Soon he will be able to hear and recognize pleasant sounds.

The glands that produce saliva in the mouth are not very active until the baby is three to four months of age. When saliva does form he won't be able to swallow it as an adult does, so he will drool a lot. He seems to have a marked preference for sweet foods. His sucking reflex is well developed. He will make sucking noises very shortly after birth. The ability to swallow is not completely developed, he can swallow only liquids with ease.

Notice how short his neck is? The muscles of his neck are weak so when you carry him his head must be supported for the first few weeks. One of his first accomplishments will be to control his head.

When you look at a baby's body the abdomen looks large and it is. His chest is small and quite narrow. Some babies, both boys and girls, may develop enlarged breasts during the first week or so of their life. This is quite common and it is believed to be the result of some of the mother's hormones "spilling over" into the infant's blood stream. No treatment is needed as it soon clears up. The important thing is for you to realize it is quite common and make no effort to treat it yourself. If it worries you talk to your doctor about it.

Newborn babies have only one curve in their back, this is the one at the neck. As they grow they will develop the other two. Babies need a firm straight mattress.

Before the baby is born, nourishment enters his body through blood vessels in the umbilical cord. This structure contains both an artery and a vein. In a few days this will dry up and leave a black stump. The stump will drop off when the baby is about ten days to two weeks old. The umbilicus needs no special care and should not be covered. When it drops off it may bleed slightly. Your baby should not have a tub bath until the umbilicus has healed.

The genitalia should be kept clean. If your baby boy is circumcised ask your doctor for instructions on how to care for the penis until it has healed. The area around the glans whether circumcised or not should be cleaned daily.

If you have a baby girl separate the labia with the fingers of one hand, use a piece of clean, wet cotton and wipe from the clitoris down past the anus. Repeat this process on the other side with a clean piece of cotton. This should be done daily.

The newborn's legs are in a flexed position and remain that way for much of his early months. His legs will grow about five times as long by the time he is an adult. Sometimes you may read of a newborn infant who can walk. They all do. When you hold a newborn baby in an upright position with his feet on a flat surface he will make walking movements with his feet. This is another reflex that will soon disappear.

Your baby's skin is very important as a protection against external infections. His skin color is closer to red than pink; it looks very delicate, and it is. You'll need to keep it clean and dry to avoid rashes or skin infections. It is desirable to use only a small amount of powder in the diaper area and in creases and folds of the skin in hot weather. Avoid large amounts which "cake" and irritate the skin. Cornstarch is a very effective powder. It is inexpensive, nonirritating and a substance to which the baby doesn't become allergic. A kitchen salt shaker makes it very convenient to use.

Many doctors now suggest bathing the baby only every other day in cool weather and using only clear water except for the diaper area and hair where a mild soap should be used. If the baby is especially sensitive to rashes, be sure he has frequent changes of diapers, and that the diapers have been washed and rinsed well. It is important not to let a baby lie for long periods of time in wet or soiled diapers. If you are using protective pants, it is even more important to change the baby often since the moisture then is held next to the baby's body.

The newborn infant is unable to adjust his temperature when the temperature of his surroundings changes. Therefore, it is very important to dress him according to the temperature of the room. If it is cool, he has to be kept warm, and when it is warm he should have fewer clothes on. When it is very warm he may need only a diaper. When your baby is about a month old his sweat glands will be more mature and he will start to perspire. His head will probably seem to perspire a lot when he is warm.

Healthy babies are sturdier than most mothers realize, so handle him with confidence and he will feel more secure. Many of you know experienced mothers who can quiet a crying baby simply by her confident hands.

Crying serves the purpose of letting you know that he is uncomfortable. He may be hungry, or wet. He may just want to be held. If it is within an hour of his expected feeding time, or if he didn't take as much as he needed at his last feeding, he may be hungry, and may want to be fed. If his diaper needs changing or if he is in some obvious discomfort such as tight clothing or an uncomfortable position, the solution to the crying is simple.

You will soon learn to recognize and anticipate your baby's needs. There will be times when he will cry for no apparent reason, and holding or comforting him by patting with your hands and talking to him will do the most good. All babies need mothering. Mothering helps them to thrive and become healthy happy children. So don't be afraid to hold him and comfort him when he cries or is unhappy. One of his greatest tasks during his first year of life is to learn to trust his mother and father. All normal babies cry and fuss sometimes but it usually doesn't last too long.

A newborn baby will often have an episode of hiccoughing. Sometimes the hiccoughs stop when the baby is held upright or put on his stomach. They usually disappear in a few minutes.

Sneezing is quite common, and it does not necessarily mean he has or is getting a cold. He may have something in his nose and sneezing is one way to get rid of it. During the early days of a baby's life his respirations are often irregular. Most of the time this is normal, but if you are concerned call it to your doctor's attention when he examines your baby.

Feeding

You will want to discuss both breast feeding and bottle feeding with your doctor. If you want to breast feed your baby, you can prepare your nipples in the latter part of pregnancy by keeping them clean. Some doctors advise applying lanolin or cocoa butter daily.

However, if you do not wish to breast feed or are unable to do so, remember that babies do just as well on bottle feeding. The important thing is that you and your husband agree on how to feed your baby and that you are happy with your decision. Relatives really don't count.

Many women enjoy breast feeding; breast feeding has advantages. Some of the advantages are:

1. The milk is always available and at the right temperature.
2. There is no formula to make and consequently no chance of error in preparation.
3. It contains just the right ingredients for the baby and is easy to digest.
4. Fewer breast fed babies develop allergies.

Your breast milk will come in between the third and fifth day. If possible, it is a good idea to stay in the hospital until it has come in. The supply of breast milk usually does not become well established for two or three weeks.

It is important for you to wear a good uplift brassiere. Most mothers have some leakage so you will need to place a pad over the nipple. Today these pads can be purchased at the drugstores. Most hospitals use the commercial variety and you can try them out there. Paper tissues could be used very nicely. Don't be surprised if this leakage continues for the first few weeks after delivery.

You should continue eating a diet that includes a wide variety of foods. Be sure to drink plenty of fluids. Milk is a good food as it is an excellent source of protein.

Wash your hands before feeding your baby, then find a comfortable position. Some of you may be more comfortable in a sitting position, others will like to lie down. You may find that a pillow at your back or under your arm helps. Try out various positions and find one that you like best.

Your baby is born knowing how to turn his head in search of food. When his cheek is laid against your breast he will start moving his mouth toward your nipple in search of food. This searching is called the rooting reflex. All babies do this--you can help him by holding your breast so that he can easily find the nipple. Do not hold your baby's cheeks or chin. This is frustrating as he will want to turn in the direction of the cheek that is touched. When he has found the nipple see that it is well back in his mouth, and that the gums are on the areola of your breast. When the baby's gums are in this position they will press down on the milk reservoir that is directly behind the nipple and will squeeze the milk out.

Your baby's first efforts at nursing can make your nipples tender. For the first few days do not permit him to suck more than a few minutes at each feeding period. Before taking the nipple away from the baby, open his mouth by inserting your finger into the corner of his mouth, breaking the suction. In the early days it may be a good idea to allow him to nurse on both breasts at each feeding.

When you feed your baby be sure that your breast does not cover his nose. You may need to press the breast away from his nose with your fingers.

Frequently the amount of milk produced will diminish at the time you start to resume more activity, on about the seventh or eighth day. If the baby is allowed to nurse too long during this period of decreased production the nipples will become tender. If you have a decrease in supply allow the baby only a few minutes of breast feeding. Consult your doctor if he doesn't seem to be getting enough milk, however, patience and a little less activity will usually solve the problem.

It will probably take you a little time to feel at ease with your baby and to learn his reactions to breast feeding. Some babies are "eager beavers" and get down to business right away; they may finish their feedings in 10 to 15 minutes. Another baby will believe in the "eat awhile and rest awhile" policy. These infants often seem to be too sleepy to do otherwise and may take about 30 to 45 minutes to eat. It is not wise to snap his toes, shake him or work his jaws. Move him gently and try again.

It's a good idea to give your baby a feeding of formula occasionally so he becomes accustomed to this kind of feeding. You and your husband need to be away from your baby ever so often and he will often need to be fed when you are gone, so be prepared to have a bottle of formula for these occasions.

Bottle Feeding

If you decide to bottle feed your baby, your doctor will give you a formula for the baby. He will guide you about the amount to put in each bottle. The baby may take more or less than this amount. If the baby empties the bottle, offer him another, since he may need more at this feeding. Try to hold your baby when you feed him, not only because he is less apt to choke when you are holding the bottle

but also because he needs your love and attention. Most newborn babies sleep so much that the only times you can hold him and show him your affection are when feeding, changing and bathing him.

When you bottle feed, the formula need not be hot--room temperature will do. Just before feeding time you may warm the bottle in a deep saucepan with three or four inches of water in it. Shake the bottle well so you can judge the temperature. If it seems quite warm try shaking a few drops on the inner side of your wrist.

Find a comfortable position. A chair with arms will usually be best. Try not to permit many interruptions. Hold the bottle so that the nipple is filled with milk at all times since this will help to keep him from swallowing excessive air. If you have a toddler he may want to sit with you--to "feed his baby." You may need to buy a doll bottle for the toddler so that he can "feed his baby."

Babies swallow air when they are being fed. When the baby stops sucking it may be that the air bubbles make him feel full. Hold him upright, either sitting in your lap or over your shoulder, and gently rub or pat his back. He may not express the air bubbles at this time so offer him more formula. Some babies like to be burped during the feeding, others like to wait until nearly the end. It takes about one month to develop a feeding pattern.

After a feeding, a baby often spits up a small portion of the feeding. A bubble of air may be under the feeding and bring up some of the formula with it. If the baby is jostled around after the feeding or has taken too much, a portion of the feeding may be spit up. As long as the baby is gaining weight as he should, you know he is retaining enough of his feedings. Your doctor will be the person to advise you in changes of formula and addition of new foods. Discuss schedules with him, too.

Read the instructions which come with the bottles and nipples that you purchase. Many nipples have air valves on their edges. Be sure you know how to regulate the flow of milk. As soon as the baby is finished with a feeding, empty the bottle. Rinse it and the nipple in cold water.

Individually packaged formulas ready to serve are beginning to come on the market. Someday mothers who bottle feed their babies may not have to make formulas.

Stools

For the first few days of life the stools of the newborn baby are dark and sticky. After the baby has started eating, the appearance and frequency of his stools will depend on his feeding. The stools of a breast fed baby are soft and golden yellow in appearance. During the first few weeks, the breast fed baby may have a bowel movement as often as he eats. Later, he will have fewer and may only have one every second or third day. The stools of a bottle fed baby will vary with his formula. If you think your baby's stools are too hard or too soft, discuss this with your doctor.

At birth the baby's nervous system and muscles are immature. The muscles of the newborn's face may twitch periodically resulting in a variety of expressions. He is about three weeks to two months old before he really smiles. During the first few months the baby may jump and act startled at the slightest touch or noise. This is a normal reflex action. In time, the baby's muscles and nerves begin to mature and the baby is able to hold his head up, use his hands and eventually sit and stand alone. It will take about two years before the nerve pathways between his brain and voluntary sphincter muscles of the bowel and bladder are developed sufficiently for him to respond to toilet training.

Sleep

Newborn babies sleep much of the time. The sleep periods are broken by short waking periods about every two hours. Most babies learn to sleep through the average household noises. Very loud noises will awaken him. Other stimuli that will awaken him are hunger and discomfort.

Provide him with a bed that has a firm mattress. Be sure the mattress has a waterproof covering. An additional piece of plastic or rubber sheeting needs to be kept firmly in place as it can be dangerous. A contour mattress sheet can be of help. A full sized crib will save you money, as he soon outgrows the small bassinet.

It is usually better for all concerned if you do not need to share the same sleeping room. A healthy baby will let you know when he needs you.

He will probably like to sleep on his abdomen. This is a safe position as any mucous or milk regurgitated can easily roll out of his mouth. Do not let him lay in a prone position continuously, turn him from time to time. It is usually best not to let him lie on his abdomen until the umbilical cord is off.

Medical Supervision

It is a good idea to make arrangements for medical care before your baby is born, then you will know your doctor and he will know you. If your doctor is a generalist he will usually care for the baby. An obstetrician (the specialist delivering the baby) usually advises you to choose a pediatrician. This is a doctor specializing in care of children.

Today we know that it pays to keep a baby under medical supervision. You will receive advice on feeding, immunization, circumcision and the like. From time to time he will examine your baby to see that everything is all right.

When you receive your official birth certificate from the Iowa State Department of Health you will receive a record form for your child's immunizations and childhood diseases. Have your doctor fill this out when he gives the immunizations. Be sure to keep this record.

Emotional Environment

Your baby starts to learn how people live as soon as he is born. He seems to sense the feelings of the people who care for him. The baby who is surrounded by the love of his parents for each other and for him learns how to love. As your baby begins to respond to your attentions you will begin to enjoy him more and more. If you are happy, he will probably be a relaxed happy baby.

Other Children

If you have other children and bring a new baby home, remember that this little one is an intruder in their house and it is only natural that they should be jealous. When they see you spending so much time with the little baby they may become resentful of the newcomer. They may show this resentment in a variety of ways. If they have been toilet trained, feeding themselves, etc., they may regress to a more infantile type of behavior. They might suddenly have difficulty getting along with other children on the playground and in school. You may not be able to leave the new baby alone with your other preschool children. This kind of reaction is normal.

You will not be able to prevent jealousy of the new baby. All of us experience these feelings at various times. Perhaps the best way to handle this is to help your other children feel loved and necessary. Do not make them feel as though they are bad children. Try to understand their feelings. Some mothers plan to bring a small "surprise" for each child, when she comes home from the hospital. Giving the older children sufficient attention the day you come home will be reassuring to them.

A toddler is very dependent upon his mother for emotional support, and may feel resentful of his mother's absence. Sometimes he may have difficulty accepting mother when she returns from the hospital. Try to give the toddler more attention than the new baby if you can that first evening or days at home.

Bath Time

Bath time is clean-up time, but it is more than that for both you and your baby. When you first come home from the hospital your baby may not enjoy his bath, in fact, he may do a lot of crying at this time. As he grows older it will become fun to splash in the water and fun to play with toys. Bath time is another play time.

Plan now for a place for baby's bath. It may be in the kitchen if this is a room that is warm and free from drafts. The kitchen table usually has enough space for an enamel tub, supplies and a place to dress your baby. Make your plans according to whether you decide to use a tub or bathinette. If baby is to have a room of his own perhaps this may be the place for the bath equipment, especially if the bathroom is close at hand.

The time of day you choose to give your baby his bath may depend a great deal on your family schedule. Most mothers bathe their baby in the middle of the morning but evening may be the best for your family. About an hour

before feeding time is usually a good time. It is not a good idea to bathe him until at least an hour after you have fed him. The disturbance may cause him to spit up and usually breaks his sleeping patterns.

It is all right to skip the bath on a day when you are not feeling well or the house is cold. Some doctors advise you to bathe your baby only every other day when the weather is cool. On the other hand, there may be some very hot days in the summertime when you can keep your baby more comfortable by sponging him more frequently.

On the days that you do not give a complete bath you will need to change his clothes and cleanse the deep creases and genital area with water.

We must always think about safety when caring for young children. When your baby is very tiny he needs complete protection from harm. Since he has no experience or memory to remind him that certain activities can be dangerous and painful, you must accept the responsibility of providing safe surroundings. Be sure that the bathinette or the table you are using is sturdy and not likely to tip over. The most important thing in relation to bathing is never to leave the baby unattended. If you have forgotten some of your equipment, take your baby with you or place him in his crib. If the telephone or doorbell rings, let it ring or take your baby with you when you answer it. The important thing is to see that your baby is safe.

Sponge or tub bath? You and your doctor will decide which he should have when he is tiny. Usually he receives a sponge bath until the cord is healed. Your baby may like a sponge bath better during the first few weeks. Ask your doctor about soap. He may or may not have a preference.

When everything is ready, put a small amount of water in the tub. The water should feel comfortably warm when you dip your elbow in it.

Either partially undress your baby or completely undress him and wrap him in a bath blanket. With your washcloth, using clear water, wash his eyes, face and ears. Mucous particles in the nose can often be removed with a tissue wipe, sometimes a small twist of cotton will do the trick but be careful not to push it too far up the nose. Do not use cotton on a toothpick or a stick because babies usually squirm and you could injure the delicate mucous membranes.

For the shampoo hold your baby's head in your open hand with his body resting on your arm and hip - in a football hold fashion. He will be well supported and you will have one hand free. Hold his head over the tub and using a washcloth wash it with soap and water. Do not be afraid of the fontanel (the soft spot). It is covered with a very tough membrane. Rinse the head with clear water and dry. (A demonstration of this procedure is usually necessary)

A baby's mouth does not have to be cleansed. The saliva produced will keep it clean, but it is wise to inspect the baby's mouth each day.

If you are giving a sponge bath remove some or all of the clothing or bath blanket. Be sure to wash the creases in the neck, arms and groin well. If you are using soap, use only a small amount on the washcloth. Be sure all the soap is rinsed off and pat rather than rub dry. If your baby is a girl, push apart the folds of the vulva and wash carefully. In baby boys who have not been circumcised, the foreskin should be gently pushed back and cleansed daily. If the foreskin is tight discuss this with your doctor.

You will soon learn to do these things in the way you and your baby like the best.

After bath care may include powder or lotions. Ask your doctor how he feels about it. Use them sparingly, if you use them. Apply with your fingers and wipe off the excess. Cornstarch can be used instead of powder. Do not let your baby play with a powder can even when you think it is empty, as breathing powder into the lungs can be harmful.

A baby's fingernails and toenails should be cut as often as necessary. A good way to do this is to let your baby's fingers curl over your finger. It is much easier to cut fingernails when the baby is sleepy.

In putting on shirts, gowns or sweaters, put your fingers through the sleeve, grasp the baby's hand and pull the sleeve up over his arm. Roll the baby on his side, smoothing the garment across the back and repeat the first step in putting on the other sleeve.

Most diapers are rectangular. You can continue to fold them in this fashion. The number of folds will depend upon the size of your baby. When he is small the diaper can be folded with an extra fold down the center. There will also be an extra fold in length. For the girl baby place this fold in the back and for the boy place it in the front. These folds will help to absorb some of the moisture and help keep the shirt and gown from becoming too wet. Keeping the shirt on the outside of the diaper helps to keep it dry.

Demonstration of Use and Type of Nursing Bottles and Formula Preparation

Formula Preparation:

You will need the following items of equipment:

Six-eight baby bottles, eight ounce size, complete with nipples and nipple covers

One large kettle for sterilizing or a sterilizer with a wide rack

One bottle brush

One set of measuring spoons

One measuring cup

One saucepan

One long handled spoon

One can opener that punches holes if you use canned milk

One pair of tongs is useful

Buy the standard eight ounce bottles with lines indicating the ounces. Heat resistant glass bottles cost more but save money in the long run. Many mothers are using plastic bottles; some of these are heat resistant too. Some hospitals sell a carton with six bottles and will fill it with formula on the day you go home.

Most of the nursing bottles today come equipped with the nipple and some device for protecting the nipple. It is a good idea to purchase a complete set of the same brand. You will save time as the nipple caps of different brands are not interchangeable.

Your bottle brush should have a long handle and strong bristles to scrub the insides of the bottles. It should have bristles on the top as well as the sides so that the bottom and the sides of the bottle can be cleaned at the same time.

If you do not have a large kettle that can be used for sterilizing bottles, it may pay you to buy one specifically for that purpose. In any event you should have a kettle with a tight fitting cover and some kind of rack in the bottom.

The easiest and simplest way of preparing a formula is to mix the formula, pour it unboiled into the bottles that have been washed but not sterilized, put on the nipples and then sterilize the filled bottles in your kettle or sterilizer. Bring the water in the kettle to a boil. Boil actively for 25 minutes by the clock.

Take the bottles out of the kettle with tongs or hot pads as soon as possible and put them in a pan of cold water. Shake each bottle gently from side to side a few times as you put them in the water. The water should come up to the level of the milk in the bottle. If necessary change the water in the pan to keep it cold. It is extremely important to cool bottles as quickly as possible as this helps to prevent film formation. Additional agitation during the cooling will also be helpful.

After the bottles cool, put them in your refrigerator at once. A rack to hold the bottles upright is very convenient.

Cleanliness includes clean hands and dress in addition to clean equipment and ingredients.

Refrigeration is essential to keep organisms that have come into the formula from growing and multiplying.

Families using water from private wells should sterilize the formula and water for the first few weeks. Those of you living in the country

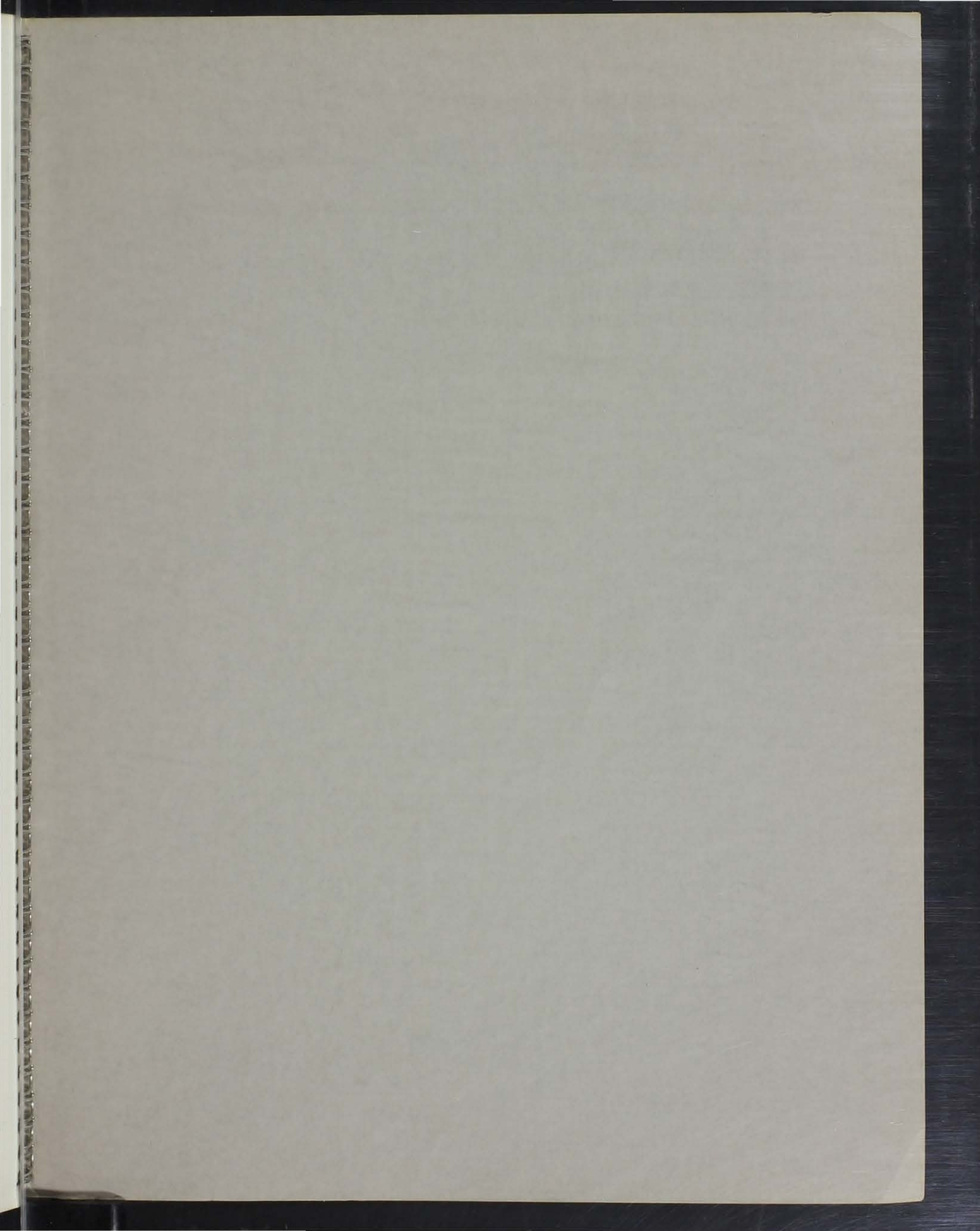
should have the well water checked for nitrates before your baby is born. Discuss this with your doctor.

If you live in a town or city with an approved water supply, your doctor may not feel it is necessary to sterilize the formula. When you do not sterilize the formula these are some practices you should follow:

1. Rinse the bottle with cold water after the baby has had his feeding.
2. When you are washing the bottles use clean water. Detergents are more effective in removing fat from the surface of the bottles.
3. Rinse the bottles, especially the inside, with very hot water; or put them in a pan and bring them to a boil.
4. Always wash your hands and use clean utensils when preparing just one bottle.
5. If you make more than one feeding at a time be sure they are refrigerated as soon as mixed and until they are served.

The secret of maintaining a safe formula for your baby is cleanliness and refrigeration.

This completes the series of classes. We hope the time spent, knowledge and friendships made have been of lasting value to you. We hope you have a rewarding experience as a parent.



STATE LIBRARY OF IOWA



3 1723 02121 1040